THE RELATIONSHIP BETWEEN INDIRECT FAMILY FACTORS, EMOTIONAL REACTIVITY, AND YOUNG ADULT'S INTERPERSONAL COMPETENCE

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THE RELATIONSHIP BETWEEN INDIRECT FAMILY FACTORS,

EMOTIONAL REACTIVITY, AND YOUNG ADULT'S

INTERPERSONAL COMPETENCE

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THESIS ABSTRACT

THE RELATIONSHIP BETWEEN INDIRECT FAMILY FACTORS, EMOTIONAL REACTIVITY, AND YOUNG ADULT'S INTERPERSONAL COMPETENCE

Lanie Joy Dakin

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While interpersonal competence has been studied for decades by myriad disciplines, reviewers have noted again and again a deficit in the study of the development of interpersonal competence. The purpose of this study is to look at the relationship between indirect family and individual factors in relation to interpersonal competence. This study builds on previous research by using a young adult sample, looking at gender of parent as a control variable, using multiple predictor variables, and looking at general as well as specific aspects of interpersonal competence.

The study sample included 685 college students from the mid-west with a mean age of 20.2 (SD = 2.87). The majority of participants were female (66.4%), were raised in intact homes (86.2%), and were of European American ethnicity (89.3%). Measures

from *The Relationship Competencies of Rural Adolescents and Young Adults* project were used to assess the indirect family factors of attachment, parenting, family process, and family status as well as the individual factor of emotional reactivity. Interpersonal competence included a total score as well as the dimensions of disclosure, emotional support, initiation, negative assertion and conflict management. Simple multiple regression analyses were conducted to determine which predictors were most associated with each aspect of interpersonal competence.

All of the predictor variables but family status were significantly related to interpersonal competence. Furthermore, gender of parent results found that mother communication and father communication were related to interpersonal competence in unique ways. Entered simultaneously, the predictor variables accounted for 3.1% to 18.7% of the scores for total interpersonal competence and each of the sub-dimensions. Moreover, each regression analyses showed a unique combination of significant contributors to the variance in the scores.

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INTRODUCTION

Interpersonal competence is such an obscure, academic term for a concept so important to daily life. Indeed, it plays a part in every social exchange and is a component of such phenomena as marital satisfaction, psychological well-being, and professional success (Buhrmester, Furman, Wittenberg, & Reis, 1988; Green & Burleson, 2003; Spitzberg & Cupach, 1989; Wilson & Sabee, 2003). Its significance in daily life in part explains academia's longstanding interest as well as the multidisciplinary study of interpersonal competence (Spitzberg & Cupach, 1989; Rose-Krasnor, 1997; Wilson & Sabee, 2003). Unfortunately this had led to a fragmented literature with as many definitions of interpersonal competence as there are researchers. Despite this confusion, the ability to interact appropriately and effectively with others is the most general definition of interpersonal competence used in the literature (Rose-Krasnor, 1997; Spitzberg & Cupach, 1989).

With such a vast literature spanning so many decades it is interesting that review after review observes a significant deficit in the study of interpersonal competence origins (Conger, Cui, Bryant, & Elder, 2000; Green & Burleson, 2003; Rubin & Rose-Krasnor, 1992; Spitzberg & Cupach, 1989). It is particularly surprising given the many theories that link individual, family, peer, and environmental systems to the development of interpersonal competence (Green & Burleson, 2003; Pettit & Clawson, 1996;

Spitzberg & Cupach, 1989). Interest in and study of the development of interpersonal competence is growing, particularly in the areas of family and individual factors.

The possible veins of research into the development of interpersonal competence are numerous within the family system. Attachment, parenting, family process, and family status, for example, are among a few of the indirect family factors that have garnered attention from researchers over the years. Although they do not directly influence the acquisition of interpersonal competence, as say parental supervision of play might, research has shown them highly salient to numerous adolescent research outcomes (Collins & Laursen, 2004; Cooper & Cooper, 1992; Ladd, 1992, 1999, 2005; O'Neil & Park, 2000; Peterson & Leigh, 1990).

The study of emotion has exploded over the last decade and a half (Boyum & Parke, 1995; Ladd, 1999; McDowell, Kim, O'Neil, & Parke, 2002; O'Neil & Parke, 2000). Researchers have suggested that several aspects of emotion may be antecedents of interpersonal competence (Boyum & Parke, 1995). Chief among these antecedents is the concept of emotional reactivity which is defined as the involuntary emotional response an individual has to a particular situation. It involves the level of excitability, responsivity, or arousability in behavioral and physiological systems and is a hallmark of temperament (Eisenberg, Smith, Sadovsky, & Spinrad, 2004; Rothbart et al., 2000). As with indirect family influences, research has found links between emotional reactivity and several adjustment outcomes (Eisenberg, Spinrad, & Smith, 2004; Ladd, 1999; Lopes et al., 2004; McDowell et al., 2002).

Several themes arise when looking across studies of indirect family and individual influences of interpersonal competence development. First and foremost, the majority of

studies in attachment, parenting, family status, family process, and emotional reactivity have focused on infant and childhood outcomes. Those looking at outcomes for adolescents and young adults are comparatively slim (Eisenberg, Smith et al., 2004; Ladd, 1999, 2005; Lopes et al., 2004; Peterson & Leigh, 1990; Pettit & Clawson, 1996; Rubin et al., 2004; Rubin & Rose-Krasnor, 1992; Smith, Prinz, Dumas & Laughlin, 2001; Thompson, 1994).

Second, despite this paucity in adolescent and young adult studies, relationships have been established between each of the aforementioned factors and interpersonal competence (Bell, Forthun, & Sun, 2000; Conger et al., 2000; Laible & Carlo, 2004; Lopes et al., 2004; Webb & Baer, 1995). This pattern of association holds true for all but the family status factor, where findings are inconsistent as to whether a relationship exists or not (Kesner & McKenry, 2001; Long, Forehand, & Fauber, 1987).

A third theme arises out of researchers endeavors to refine the relationships between indirect family and individual influences and interpersonal competence (Cooper & Cooper, 1992; Demo & Cox, 2000; Ladd, 1992; Ladd,1999; Rose-Krasnor, 1997). To this end, control variables such as gender of adolescent and race have been used (Armistead, Forehand, Brody, & Maguen, 2002; McDowell, Kim, O'Neil, & Parke, 2002; Rice, Cunningham, & Young, 1997; Smith, Prinz, Dumas, & Laughlin, 2001). Recently, studies looking at gender of parent as a control variable have flourished and have found unique influences on interpersonal competence by mothers and fathers (Bartle-Haring & Probst, 2004; Bartle-Haring, Rosen, & Stith, 2002; Laible & Carlo; 2004; Schneider & Younger, 1996; Schoenrock, Bell, Sun, & Avery, 1999).

The final theme involves another approach researchers have taken to refine the relationships between indirect family and individual influences. In search of distinctive relationships, they have examined different aspects of a given factor and/or different aspects of interpersonal competence. Be it attachment style and social skills (DiTommaso, Brannen-McNulty, Ross, & Burgess, 2003), parenting communication and emotional skills (Jones & Houts, 1992), family processes and interpersonal competencies (Levy, Wamboldt, & Fiese, 1997; Shoenrock, et al., 1999; Smith et al., 2001), or emotional reactivity type/level and social adjustment (Bartle-Haring et al., 2002; Bartle-Haring & Probst, 2004; Bartle-Haring & Sabatelli, 1997; Eisenberg et al., 2003; Skowron, Holmes, & Sabatelli, 2003) researchers have revealed unique patterns between aspects of the two factors.

Although common themes have arisen, the review of family and individual factors thus far have only included studies looking at a single factor's impact on interpersonal competence. Researchers have noted that the focus in the origins of interpersonal competence literature has started to move from simply establishing relationships between indirect family and individual influences and interpersonal competence to discovering the processes that may explain these relationships (Contreras & Kerns, 2000; Ladd, 2005).

A handful of studies have looked at interactions between two of these factors and interpersonal competence (Armistead, Forehand, Beach, & Brody, 1995; Eisenberg et al., 2003; Forehand, Middleton, & Long, 1987; Summers, Forehand, Armistead, & Tannenbaum; Weirson & Forehand, 1992; Wei, Vogel, Ku, & Zakalik, 2005) but their findings are thus far equivocal (Mize, Pettit & Meece, 2000). No study has examined all

of the indirect family factors and emotional reactivity together and the resulting relationship with interpersonal competence.

The purpose of this study will be to examine the possible relationships between parent-child interactions, family status, family processes, and emotional reactivity in relation to young adult's interpersonal competence. Interpersonal competence will be examined not only in general terms but also as a set of dimensions. These dimensions include disclosure, initiation, emotional support, negative assertion, and conflict management. As the literature suggests, relationships are expected between each of the independent variables and interpersonal competence. Furthermore, it is expected that the independent variables will account for the variance in general interpersonal competence as well as the variance in each of the interpersonal competence dimensions in unique and patterned ways.

REVIEW OF LITERATURE

Describe a person as a 'wallflower' and instantly an image of a teenager sitting with crossed legs on a set of bleachers watching the rest of his or her peers gyrate to the latest top-40 tunes flashes across most people's minds. It's a benign label that many people would simply smile about before continuing on with their days. It is a very pretty way to define being on the outside of one's peer group and being incapable, for whatever reason, of joining them.

The term interpersonal competence is much like the term 'wallflower'; it's a benign label that belies its importance. Yet it is an integral facet of the teenager-sitting-on-the-bleacher's experience. Interpersonal competence, in fact, is an integral part of every social exchange. It's required in everything from negotiating an international treaty to settling on a price for a car. It's involved in relationship satisfaction, personal fulfillment, psychological well-being, professional success, physical health and a multitude of similar concerns (Buhrmester et al., 1988; Green & Burleson, 2003; Spitzberg & Cupach, 1989; Wilson & Sabee, 2003).

Interpersonal competence has an extensive literature spanning several decades in numerous disciplines including communication, psychology, education, family studies, business management, and nursing (Green & Burleson, 2003; Spitzberg & Cupach, 1989). Unfortunately, this multidisciplinary study has led to a fragmented literature (Spitzberg & Cupach, 1989) with as many definitions of interpersonal competence as

there are researchers (Rose-Krasnor, 1997; Wilson & Sabee, 2003). Terms like social skills and communication competence have been used interchangeably in some areas and in others they are two separate aspects of a third term such as social competence (Spitzberg & Cupach, 1989).

Despite this multidisciplinary confusion, several researchers have distilled the most general definition used across the vast interpersonal competence literature as the ability to interact well with other people. Furthermore, they found that most definitions of interpersonal competence have two key features of interaction: effectiveness and appropriateness (Rose-Krasnor, 1997; Spitzberg & Cupach, 1989). Thus, the definition of interpersonal competence used in this thesis will be the ability of a person to interact effectively and appropriately with other people.

Researchers have had a harder time distilling the operationalization possibilities of interpersonal competence. Some researchers have operationalized interpersonal competence crudely, using overarching outcomes such as educational or job attainment as indicators. Other researchers have focused on behavioral minutiae such as length of talk time and eye contact (Spitzberg & Cupach, 1989). Still others have relied on unidimensional, global measures for such constructs as assertiveness or shyness (Buhrmester et al., 1988; Peterson & Leigh, 1990). This multitude of operationalization possibilities highlights the multifaceted nature of interpersonal competence but can make it difficult to generalize findings across studies.

Several researchers have attempted to organize these possibilities. Rose-Krasnor (1997), for example, sorted interpersonal competence studies into four general operational types: specific skills, sociometric status, relationships, and functional

outcomes. Spitzberg & Cupach (1989), on the other hand, grouped the operationalization possibilities into three large categories: social skills, social knowledge, and social motivation. They noted that the social skills category was the most widely studied and they defined social skills as specific components of interpersonal competence. This category was further grouped into three hierarchical skill levels: behaviors (e.g., eye contact), constructs (e.g., assertiveness), and processes (e.g., encoding).

In relation to Spitzberg and Cupach's (1989) social skill levels, Buhrmester et al. (1988) arranged interpersonal competence studies into two approaches: those that studied the skill components of interpersonal task domains (i.e., constructs) and those that studied the skill components of behavioral skills (i.e., behaviors). They argued that interpersonal task domains should be studied before behaviors as the later might vary across any given domain. After extensive review of the theoretical and empirical literature, they identified five interpersonal task domains: initiation of interactions and relationships, assertion of personal rights and displeasure with others, self-disclosure of personal information, emotional support of others, and management of interpersonal conflict. Given the myriad possibilities in operationalization and Buhrmester et al.'s argument, these constructs will be the interpersonal competence skills adopted for this study.

Origins of Interpersonal Competence

In 2003, Green and Burleson observed that one of the emerging issues in interpersonal competence literature is discovering how people acquire interpersonal competence as well as how interpersonal competence is enhanced by other people; in other words, the development of interpersonal competence. Interestingly, over a decade earlier Spitzberg and Cupach (1989) noted that although a reciprocal relationship

between interpersonal competence and any number of variables is assumed by most researchers, most studies use it as a predictor rather than an outcome variable. In 1992, Rubin and Rose-Krasnor discussed the continuing lack of published information on the development of interpersonal competence. Conger et al. (2000) also commented on the deficit in research on the development of interpersonal competence. It seems that the search for interpersonal competence origins has been, and continues to be, an understudied area of research.

Many systems have been theorized as influential to the development of interpersonal competence including individual, peer, family, and environmental systems (Green & Burleson, 2003; Pettit & Clawson, 1996; Spitzberg & Cupach, 1989). Furthermore, there are growing pockets of literature in these areas. Although they noted that the studies were scarce, Rubin and Rose-Krasnor (1992), for example, cited studies establishing relationships between infant temperament and later social behavior in childhood. They also noted that family factors like attachment and parenting style have been related to later interpersonal competence. These pockets of literature, particularly the influence of family and individual factors, have increased over the intervening years. Unfortunately, most researchers have focused on infant and childhood outcomes and studies looking at the origins of interpersonal competence for adolescents and young adults are comparatively slim (Ladd, 2005).

Family Factors

Several handbooks and reviews have noted the increasing interest in the family factors associated with interpersonal competence over the last decade and a half (Collins & Laursen, 2004; Cooper & Cooper, 1992; Ladd, 1992, 1999, 2005; O'Neil & Park, 2000;

Peterson & Leigh, 1990). This interest has led researchers to examine the family environment along two different veins: direct and indirect family influences. The first vein includes behaviors that directly influence a child's interpersonal competencies such as parental supervising and monitoring of peer relationships. The second vein includes behaviors that do not directly impinge on interpersonal competence but are nonetheless salient to interpersonal competence. These indirect influences include parent-child interactions (e.g., attachment relationships, parenting style, discipline), family processes, and family status.

Parent-Child Interactions and Interpersonal Competence

Attachment and Interpersonal Competence. Attachment theory grew out of John Bowlby's experiences as a psychiatrist for maladjusted children and his belief that early family relationships affected personality development (Bretherton, 1995). The theory posits that early relationship experiences with one's primary caregiver form the basis for future relationships. As these experiences build upon each other, one interaction at a time, an internal working model of the self and other in relationships is formed. This working model is in turn used every time a person faces a new developmental challenge or relationship (Bell et al., 2000; Bretherton, 1995; DiTommaso et al., 2003; Rice, Cunningham, & Young, 1997; Rubin, Dwyer, Booth-LaForce, Kim, Burgess, & Rose-Krasnor, 2004; Schneider & Younger, 1996; Weinfield, Ogawa, & Sroufe, 1997).

The study and elaboration of attachment has flourished since its formal introduction in 1969. Since then it has been linked to a multitude of constructs and outcomes (Goldberg, 2000). Specific to interpersonal competence, Goldberg (2000) states that attachment theory posits that the early attachment relationship is the

foundation for later social development. This theory has been examined abundantly in the infant and child development literatures over the intervening decades but fewer studies, and only in recent years, have focused on the relationship between attachment and interpersonal competence for adolescents and young adults (Rubin et al., 2004). Studies are beginning to look at and have found links between the quality of the attachment relationship and different aspects of social competence (DiTommaso et al., 2003; Rubin et al., 2004).

Bell et al. (2000) investigated the relationship between attachment and adolescent competencies, among them peer relationship competencies, in 470 college students. Adolescent attachment was operationalized as having positive and negative dimensions. Participants responded to questions regarding trust, communication and alienation in their relationship with their parents as well as questions concerned with their social relationships and mastery of their world. Positive associations were found between adolescent attachment and all adolescent competencies.

Schneider and Younger (1996) also looked at different dimensions of adolescent attachment but focused on their unique associations to adolescent peer relationships as well as differences in attachment by gender of parent. Sixty-three grade 10 high school students reported on the trust, communication, and alienation in the relationship with their mother and father. They also responded to a questionnaire looking at five aspects of interpersonal competence: initiation, disclosure, assertion, emotional support, and conflict management. Interestingly, Schneider and Young found unique relationships for mother attachment and father attachment, but only for the negative dimension of alienation. Father alienation was negatively associated with all five interpersonal

competence subscales while mother alienation was negatively associated with only conflict management.

Rice et al. (1997) found similar results highlighting the importance of father-adolescent attachment on social competence. Six hundred thirty diverse college students (249 black, 243 male) from a rural southern university answered several questionnaires including measures for attachment and social competence. Differing from the above two studies, Rice et al. operationalized attachment as a continuum of care. Questions focused on the care/involvement versus indifference/rejection in the adolescent-parent relationship. Their construct of social competence focused on the adolescent's social self-efficacy (their willingness to initiate, persist, and complete social behaviors) and social adjustment (their extent and success of social activities and functioning). Results found a positive relationship between father-adolescent attachment and social competence, and the lack of an association between mother-adolescent attachment and social competence, for white, black and male students. Female students were the only category in which the mother-adolescent attachment relationship was related to social competence.

Instead of focusing on the differing influence of mother and father-adolescent attachment relationships, DiTommaso et al. (2003) looked at different attachment styles and their relationship to social skills in young adults. Four attachment styles, based on either positive or negative views of self and other in relationships, were assessed: secure, dismissing, preoccupied, and fearful. Like Schneider and Younger (1996), they also focused on specific social competence skills rather than general global competence scores. They examined expressivity, sensitivity and control in both emotional and social skills of 183 (118 female) college students (mean age 19.4). They hypothesized that

secure styles would be associated with a higher balance of social skills and insecure styles would be associated with an imbalance.

As hypothesized, DiTommaso et al. (2003) found unique patterns between each attachment style and specific social skills. Securely attached students, identified by their positive view of both self and others in relationships, had significantly higher scores on all the social competence skills except for social sensitivity, which interestingly they scored significantly lower on. In contrast, fearfully attached young adults, with their negative views of both self and others, scored significantly lower on all social competence skills but emotional control and social sensitivity. Students with dismissing attachment styles (positive self, negative other) showed a significant pattern of lower emotional expressivity, social expressivity, and social control scores while preoccupied students' attachment scores (negative self, positive other) were positively associated with social sensitivity but negatively associated with social control.

The results in these four studies begin to establish the association, be it positive or negative, between attachment in adolescence and young adulthood and interpersonal competence. They also begin to clarify this association by looking at different control variables and different aspects of attachment. Schneider and Younger (1996) and Rice et al (1997) examined differences in the association based on control variables like gender of parent, gender of adolescent, and race. Furthermore, Schneider and Younger studied different dimensions of attachment and their relation to social competence. Finally, DiTommaso et al. (2003) looked at different attachment styles and their negative or positive associations with social skills.

Parenting and Interpersonal Competence. Parenting practices are one of the most researched indirect family influences (Peterson & Leigh, 1990; Pettit & Clawson, 1996) and the research establishes clear relationships between parenting and interpersonal competence (Cooper & Cooper, 1992; Demo & Cox, 2000; Ladd, 1992, 1999, 2005; Peterson & Leigh, 1990; Pettit & Clawson, 1996). The findings in this area, however, predominantly reference infants and young children (Ladd, 1999, 2005; Pettit & Clawson, 1996) although there seems to be continuity between childhood findings and those involving adolescents and young adults (Cooper & Cooper, 1992).

Global parenting styles and more specific parenting dimensions have garnered the most attention from researchers over the years (Ladd, 1992, 1999, 2005; Peterson & Leigh, 1990; Pettit & Clawson, 1996). Baumrind and colleagues created four famous parenting styles (authoritarian, authoritative, indulgent, and indifferent) classified along two continuums (responsiveness and control) that have been shown in numerous studies to be related to social competence. In general, authoritative parenting seems to promote the development of interpersonal competence while the other three parenting styles inhibit its development (Demo & Cox, 2000; Ladd, 1992, 1999, 2005; Peterson & Leigh, 1990; Pettit & Clawson, 1996).

Conger and colleagues (Conger & Conger, 2002; Conger et al., 2000; Kim, Conger, Lorenz, & Elder, 2001), using their ongoing longitudinal data, have looked at global parenting styles and their relationship to adolescent and young adult interpersonal competence. In a sample of 193 young adults who had participated with their families during adolescence, Conger et al. hypothesized three unique family of origin influences on interpersonal competence; these included parenting behavior, marital interactions, and

sibling interactions. Parenting behavior was operationalized using three indicators (parental affect, parental monitoring, and low harsh/inconsistent parenting) and labeled nurturant/involved parenting. After using structural equation modeling, the only significant factor predicting young adult interpersonal competence was the nurturant/involved parenting variable.

Kim et al. (2001) looked at the flip side of nurturant/involved parenting, coercive interaction patterns, in their study of 91 young adults from the same ongoing longitudinal study. The negative affect (hostility, angry coercion, and antisocial behaviors) observed in both parents' and target youth's behavior during a videotaped discussion when the target was in 7th grade was operationalized as the coercive interaction pattern. This coercive interaction pattern between parents and adolescents was in turn hypothesized to predict the target's interpersonal competence as a young adult. This hypothesis was confirmed and interestingly young adults seemed to carry this coercive interaction pattern into their romantic relationships.

In his review chapter, Ladd (1992) noted that the parenting style continuum of responsiveness was in and of itself a strong correlate of children's prosocial behavior. In fact, related parenting dimensions such as warmth and agreeableness as well as control have been linked to children's social competence (Armistead Forehand, Brody, & Maguen, 2002; Ladd, 1999, 2005; Peterson & Leigh, 1990) and the research focus in recent years has moved from global parenting styles to specific parenting dimensions like support, control, closeness and communication (Ladd, 2005; Laible & Carlo, 2004).

Laible and Carlo (2004) looked at the differential relations between maternal and paternal support and control to adolescent social competence. This study highlights the

growing interest in adolescent outcome differences by gender of parent. One hundred nine middle and high school students answered self-report questionnaires on their relationship with their parents and their social competence. Adolescents' ratings of mother and father support, as well as control, were significantly and positively related to each other although overall mothers were rated higher than fathers on both factors. This may explain why only mother's control scores were significantly and negatively related to social competence. No interaction effects of mother and father support or control were found.

Jones and Houts (1992) examined the relationship between family communication and emotional and social skills in 338 college students. Family communication included parent-to-child criticism, positive regard, denial of feelings, and child-to-parent emotional support. Emotional and social skills were divided into expressive, sensitive, and control subskills that tapped the young adult's ability to send, receive and control interpersonal communication. Interesting and unique results were found for the different communication types and emotional and social skills, with the majority of relationships being found between communication and social skills. In fact, the only main effect found for emotional skills was a significant positive relationship between parental criticism and emotional sensitivity. It seems the higher the criticism level, the higher a young adult's ability to receive and decode emotional and nonverbal communication from others.

A young adult's social expressivity, or ability to verbally express and enjoy themselves socially, was positively related to the positive regard they received from their parents. Their ability to understand social rules and norms, social sensitivity, was positively related to parental criticism but negatively related to the amount of social

support they gave their parents. Finally, young adults' social control, defined as their ability to be effective within groups and feel assured in the company of others, was positively related to parental positive regard.

In a replication of Jones and Houts (1992) study, Segrin and Menees (1996) had 143 college students answer the same self-report questionnaires on family communication and social skills and found both similar and dissimilar results. Unlike Jones and Houts, Segrin and Menees found that the majority of relationships were between emotional rather than social skills and family communication. Emotional expressivity, for example, had no significant relationships in the original study but was positively related to parental criticism and negatively related to parental denial of feelings in the replication study. Similar to the original study, emotional sensitivity was positively related to parental criticism but the replication study found it was also related to parental positive regard and child emotional support of parents. Finally, the only significant relationships between social skills and family communication in the replication study were positive relationships between social sensitivity and parental denial of feelings and positive regard. These studies highlight the unique patterns of interpersonal competence an individual might acquire given a particular indirect family influence as well as the importance of looking at interpersonal competence as a set of skills rather than a global construct.

The results of these five studies, similar to those of attachment and interpersonal competence, begin to establish relationships between parenting and adolescent and young adult interpersonal competencies. These relationships are found in research of global parenting styles as well as specific parenting dimensions. Furthermore, researchers are

beginning to refine these relationships by looking at differences in interpersonal competence by gender of parent. Although studies of differences by gender of parent in the attachment literature found that the influence of fathers related more to interpersonal competence than the influence of mothers, the opposite was found by Laible and Carlo (2004). A further refinement of the relationship between parenting and interpersonal competence involves the study of different aspects of parenting dimesions, as in Jones and Houts (1992) and Segrin and Menees (1996) research on aspects of communication, and their unique relationship to interpersonal competence subskills.

Family Processes and Interpersonal Competence

Rather then focus solely on the parent-adolescent dyad, family process research attends to and incorporates several aspects of the entire family unit. Processes include, but are not limited to, how families communicate, organize themselves, delegate roles and responsibilities, and what they believe about their purpose and role in child development. Family processes have been associated with academic and social competence as well as behavior problems in children. Once again, studies of adolescents and young adults are scarce (Peterson & Leigh, 1990; Smith et al., 2001).

Webb and Baer (1995) examined the relationship between family disharmony and social skills for 805 seventh graders from a suburban school district in Houston, TX. The presence of high family conflict and low family cohesion operationalized the family disharmony construct while the social skills measured were assertiveness, decision-making, and goal-setting. Family disharmony and social skills were significantly and negatively related.

Levy et al. (1997) focused on several family processes in their study of family of origin experiences and conflict resolution behavior. Problem solving, communication, roles, affective responsiveness, affective involvement, behavior control, and general functioning within families were measured using the McMaster Model of Family Functioning. Sixty-three dating couples attending college at a large northeastern university participated in the study. Conflict resolution behaviors were measured by self-report and observation of a videotaped conflict discussion. The researchers found that family of origin experiences, particularly affective responsiveness, problem solving, and general functioning, were related to both self and other's ratings of conflict resolution behaviors.

Instead of using one measure to evaluate family processes like the above two studies, Schoenrock et al. (1999) performed a principal components analysis on several family measures to assess families on two process dimensions: support and autonomy. The analysis created two sets of questions: those focused on parental factors and those focused on family factors. The support dimension encompassed questions regarding attachment and warmth with parents as well as closeness, cooperation, security, trust, and low conflict within families. The autonomy dimension included parental restrictiveness and family control, intrusiveness, rule setting, and independent activity. They then looked at the relationship between support and autonomy and college students' social competence. Gender was a controlling variable. Overall, both parental and family support variables were more important than autonomy variables. Women scoring higher on social competence scores rated their families lower in family conflict and higher in family security. Interestingly, higher social competence scoring men reported that their

families had higher levels of family conflict. Socially competent men also reported lower father restrictiveness and lower family intrusiveness as well as higher rule setting.

Similarly to Schoenrock et al. (1999), Smith et al. (2001) used several family measures to evaluate family processes and their affect on child competencies. They then performed a factor analysis resulting in four family process dimensions: Beliefs, Structure, Cohesion and Communication, and Deviant Beliefs. The Beliefs factor was defined as having a clear sense of the family's purpose as well as their part in child development. The Structure factor measured the level of support perceived by family members and the family having clear leadership and roles. A sense of shared values and closeness as well as the ability to communicate with one another defined the Cohesion and Communication factor. Finally, the Deviant Beliefs factor was characterized by an acceptance of immoral and illegal behaviors in the family.

Uniquely, unlike the majority of family process studies, Smith et al.'s (2001) sample was predominantly African American and from single-parent households. Seven hundred eighteen kindergarteners, their mothers, and their teachers were recruited from an urban school district in a southeastern city. They looked at the effect of family processes on several child competencies including social competence and communication effectiveness as rated by mothers and teachers. Overall, the Structure factor, which measured levels of support and organization, was related to all child outcomes by both raters. Cohesion, Beliefs, and Structure factors were related to social competence and Cohesion and Structure factors were related to communication effectiveness as reported by mothers. Only the Structure factor was related to social competence and communication effectiveness as reported by teachers.

As seen in previous sections, the above studies begin to establish a relationship between an indirect family factor, family process, and interpersonal competence. Given the overarching nature of the construct, research lends itself to looking at specific aspects of family process. Thus it is not surprising that three of the four studies looked at and found unique patterns between different aspects of family process and adolescent and young adult competencies. Furthermore, there seemed to be a theme across the findings. Namely, adolescents and young adults' competencies were most related to family processes that in one way or another measured the perceived support in their families.

Family Status and Interpersonal Competence

There is a vast literature documenting the relationship between different family statuses (intact, separated, divorced, remarried, and single-parent families) and child, adolescent, and young adult outcomes. Findings have been contradictory as to these relationships as well as to the specific relationship between family status and social competence. Some researchers have found negative relationships and others no relationships.

In their longitudinal study, Pagani, Boulerice, and Tremblay (1997) found that children of divorced parents showed difficulty in multiple behavioral areas including pro-social behaviors. Furthermore, they found that the effects of family transition on children's behavior were dependent on the child's age at time of divorce. The younger the age of the child at divorce, the higher the children scored on anxious, hyperactive, and oppositional behaviors over 3 waves of the study.

Long et al. (1987) also found negative effects of family status on social competence. Self and teacher reports of competence were collected from 40 Caucasian,

middle-adolescents as well as information on parental marital status and parental conflict levels. Although the level of parental conflict was associated with teacher-reported social competence, marital status was associated with self-reported social competence. Adolescents from divorced families reported lower social competence scores than those from intact families.

In opposition to these negative findings, Kesner and McKenry (2001) found no relationship between family status and social competence. They argued that the majority of studies looking at the effects of family status on child outcomes are methodologically weak. In answer to this weakness, they controlled for SES, race, child gender and origin of single parenthood. In particular, they hypothesized that no differences would be found between intact and single-parent child outcomes after controlling for SES. Their sample of 68 preschoolers was predominantly African American (66%) and Hispanic (20%) and 34% were from single-parent, never married households. The remainder of the sample was from intact families. They found no main or interaction effects between single-parent status and social competence and conflict management skills after controlling for SES.

Ruschena, Prior, Sanson, and Smart (2005) concurred with Kesner and McKenry (2001) that the majority of family status studies are methodologically weak and that these weaknesses produce the inconsistent findings in the literature. They answered these weaknesses by using a longitudinal design and including several control variables as indicated in the literature (race, gender, SES, age at time of divorce, marital conflict, etc). The 400 participants in their study were drawn from a larger longitudinal study that began in 1983 when the participants were 4 to 8 months old. Thirteen waves of data had

been collected between 1983 and 2000 with the latest wave being collected at age 17 to 18. Participants were split into a transition group (participants reporting a divorce, separation, death, and/or remarriage occurring in their families) and comparison group (participants from intact families). Multiple demographic, family, outcome, and control variables were gathered using data from several waves of the study. Results showed no differences between the transition and comparison groups for any of the outcome variables including social competence. Interestingly, the only significant differences found between group types were for the family variables. Participants in the transition group reported lower parent-adolescent attachment and their parents reported higher levels of marital conflict then participants in the comparison group.

Family status is the one indirect family factor with conflicting findings as to its relationship with adolescent and young adult interpersonal competence. Researchers like Pagani et al. (1997) and Long et al. (1987) have found family status to be significantly and negatively related to interpersonal competence. On the other hand, researchers like Kesner and McKenry (2001) and Ruschena et al. (2005) have found no relationship. Their argument that most family status research has been methodologically weak is compelling especially given their use of control variables and the superiority of their research designs.

Several themes emerge across the indirect family factors reviewed. The first is the paucity of studies using adolescent or young adult samples. Second, each family factor, except for family status, has been associated with interpersonal competence. The findings for family status are conflicting. Furthermore, researchers have begun to refine these associations using different control variables. The differences in interpersonal

competence outcomes in terms of gender of parent are particularly interesting. Finally, in refining these associations, researchers looking at different aspects of each indirect family factor have found unique patterns in interpersonal competencies. Moving from the indirect family factors associated with the development of interpersonal competence, an emerging individual factor will now be reviewed.

Individual Factors

Several innovative avenues of research into the origins of interpersonal competence have emerged over the last decade, among them the study of emotion (Boyum & Parke, 1995; Ladd, 1999; McDowell et al., 2002; O'Neil & Parke, 2000). Many researchers have noted that emotion is socially functional (Lopes, Brackett, Nezlek, Schutz, Sellin, & Salovey, 2004; Thompson, 1994) and have suggested that different aspects of emotion are antecedents of interpersonal competence (Boyum & Parke, 1995). Indeed, studies have found relationships between aspects of emotion and prosocial behavior, externalizing and internalizing behaviors, social skills, and general social competence (Eisenberg, Spinrad et al., 2004; Ladd, 1999; Lopes et al., 2004; McDowell et al., 2002). Unfortunately, even more than with indirect family factors, the majority of emotion and interpersonal competence studies have focused on infants and young children and there is a lack of research on adolescents and young adults (Eisenberg, Smith et al., 2004; Lopes et al., 2004; Thompson, 1994). The emotional aspects most explored in the research include emotional expression, emotional understanding, and emotion regulation (McDowell et al., 2002; O'Neil & Parke, 2000; Parke, Cassidy, Burks, Carson, & Boyum, 1992).

Emotional Reactivity and Interpersonal Competence

Multiple disciplines have taken up the mantle of emotion regulation research; among them child development, family systems, temperament, psychology, and neuropsychobiology. This has led, like the study of interpersonal competence, to myriad theoretical underpinnings, definitions, and operationalizations. At the heart of this multidisciplinary study, however, is the premise that emotion regulation is a part of temperament and thus is constitutionally based (Eisenberg, Spinrad, et al., 2004; Rothbart, Ahadi, & Evans, 2000; Sanson, Hemphill, & Smart, 2004; Thompson, 1994).

Temperament has been defined as the individual differences in reactivity and self-regulation as seen in emotional, motor, and attentional domains (Rothbart, Ellis, & Posner, 2004). Emotional reactivity is mainly the involuntary response of an individual to a particular situation and involves the level of excitability, responsivity, or arousability of that individual's behavioral and physiological systems. Relatedly, emotional regulation is mainly the voluntary, effortful response of an individual to a given situation and involves the neural and behavioral processes that serve to modulate that individual's emotional reactivity (Eisenberg, Smith et al., 2004; Rothbart et al., 2000).

Although these general definitions remain stable across many researchers, the operationalization of emotional reactivity and regulation is often different from study to study. At times the two terms are used synonymously, others as separate dimensions, and yet others as separate but connected. This creates much confusion in the literature as well as makes it difficult to generalize findings. For the purposes of this study, emotional reactivity and emotional regulation will be used as two separate but connected dimensions of temperament (Rothbart et al., 2004) with emotional reactivity being the

variable of interest. Despite this distinction, and due to the difficulties described above, a review of emotional reactivity will unavoidably include emotional regulation as well.

Eisenberg and her colleagues (Eisenberg, Losoya et al., 2001; Eisenberg et al., 2003), coming from a developmental perspective, have published numerous innovative studies associated with the emotional reactivity and regulation of infants and young children. Using videotaped observations as well as parent and teacher reports they have found significant relationships between emotional reactivity and regulation and children's concurrent and later social functioning. Eisenberg, Losoya et al. (2001), for example, observed and coded the facial expressions of 2nd to 5th graders in response to positive and negative emotion evoking slides. These observations along with mother's and teacher's ratings of the child's tendency to high expressiveness were in turn related to the child's externalizing problems.

Expanding on these findings, Eisenberg et al. (2003) hypothesized that emotional reactivity lay on a continuum, with social disadvantages at either extreme and placed kids into three groups based on their emotionally reactive inhibitive and impulsive tendencies. Each group was found to have unique social patterns. The overcontrolled group was prone to internalizing problems while the undercontrolled group was prone to externalizing problems. Both groups were associated with low social competence scores. The optimally controlled group was well adjusted, socially competent, and resilient.

McDowell et al. (2002) also looked at the relationship between children's emotional reactivity and interpersonal competence. They coded the responses of 103 4th graders to five emotion evoking vignettes in terms of emotional reactivity and coping strategies. Emotional reactivity was operationalized as the children's emotional intensity,

latency, and ease of calming down in reaction to the vignettes. Coping strategies involved the child's likelihood of responding to the vignette with anger, sadness, nervousness, or reasoning. Both variables seem to tap into the general definition of emotional reactivity but the authors confusingly use reactivity and regulation interchangeably to describe both of these variables. They then looked at the relationship between these two variables and social competence (avoidance, aggression, and positive social orientations) as reported by teachers and peers. Interestingly, they only found significant relationships between emotional reactivity and social competence for girls. Girls' intensity scores were positively related to their avoidance scores and negatively related to their positive scores as reported by peers. Teachers rated girls with high sad and low reasoning coping strategies as having a more avoidant social orientation while girls with a low nervous coping strategy were rated as having a more positive social orientation.

Lopes and colleagues (Lopes et al., 2004; Lopes, Salovey, Cote, & Beers, 2005) have studied the emotional competencies of adults through the perspective of emotional intelligence. They have conceptualized these competencies as the ability to perceive, understand, use, and manage emotions and have hypothesized that the ability to manage emotions is the most salient to social outcomes. They assessed emotion management using a series of scenarios in which the respondent rated several self and others' regulation strategies as being more or less adaptive. In the first study, 118 college students and two of their friends answered questionnaires on the four components of emotional intelligence and positive (emotional support) and negative (conflict) social interaction. As hypothesized, emotion management was the most salient emotion component and in fact

was the only emotion component with a significant relationship to social interaction. Furthermore, emotion management was significantly rated to positive and negative social interaction as rated by both self and friends.

In a second study, Lopes et al. (2005) again looked at the relationship between emotion intelligence and social interaction quality. This time, however, they looked only at emotion management and instead of focusing on emotional support and conflict; they conceptualized social interaction quality as interpersonal sensitivity and prosocial tendencies as rated by self and peers, and likeability as rated by peers. Once again, the ability to manage emotions was significantly related to both self and peer reports of social interaction quality.

Yet another viewpoint from which researchers have approached the study of emotional reactivity is that of family systems theory. Multigenerational theorists emphasize the importance of differentiation of self for both familial and individual systems (Skowron et al., 2003). This concept centers on the balance an individual strikes between autonomy and closeness in his/her relationships and one of its important indicators is emotional reactivity (Bartle-Haring et al., 2002; Bartle-Haring & Sabatelli, 1997). This emotional reactivity is the involuntary response an individual has to an emotion evoking situation (Bartle-Haring & Sabatelli, 1997) and family systems theorists, echoing the general definition of emotional reactivity, liken this response to instinct (Peleg-Popko, 2004).

In a study of 221 adults, Skowron et al. (2003) examined the relationship between differentiation and psychological well-being (specifically life satisfaction). Using two predominant family systems measures of differentiation, the authors performed a factor

analysis that generated two heavily emotion dominated factors. The first, self regulation, included aspects of high emotional reactivity while the second, interdependent relating, included aspects of low emotional reactivity. Both factors were related to men's and women's psychological well-being.

Bartle-Haring and colleagues (Bartle-Haring et al., 2002; Bartle-Haring & Probst, 2004) have also looked at the impact emotional reactivity has on psychological well-being, although their focus is on the presence of distress symptomology. Distinctively, their operationalization of emotional reactivity focuses on the behavioral responses adolescents and adults have in emotion evoking situations with their mothers and fathers. Furthermore, they split these emotionally reactive responses into active (e.g., counterattack, lose it) and passive (e.g., psychological withdrawal, physical withdrawal) forms. The researchers proposed a model directly linking active and passive emotional reactivity to both stressful life events and psychological symptoms. They also hypothesized that active and passive emotional reactivity would be indirectly linked to psychological symptoms through stressful life events. They ran the model separately for mothers and fathers.

In their first study of the proposed model (Bartle-Haring et al., 2002), 372 college students answered questionnaires on emotional reactivity, stressful life events, and psychological symptoms. The model was corroborated for both direct and indirect effects of emotional reactivity on stressful life events and psychological symptoms but only for active responses toward mothers. The model explained 14% of the variance in stressful life events and 27% of the variance in psychological symptoms. The second study (Bartle-Haring & Probst, 2004) was a replication of the first using a clinical sample

of adults (mean age = 30). In sharp contrast to the original findings, only direct relationships were found between emotional reactivity and psychological symptoms. This was significant for passive reactivity towards mothers and both passive and active reactivity towards fathers. No other paths were significant.

Bartle-Haring and Sabatelli (1997) examined the relationship between emotional reactivity and interpersonal competence in 338 college students. Rather than look at mothers and fathers separately, emotional reactivity was combined for both parents and respondents were placed into one of three groups (low, middle, and high) based on their total score. Although the authors combined emotional reactivity scores, they separated interpersonal competence into subskills: initiation, negative assertion, emotional support, self-disclosure, and conflict management. Results showed that differences in emotional reactivity predicted interpersonal competence on all but the conflict management subskill. Respondents with low emotional reactivity scored higher in initiation, negative assertion, emotional support, and self-disclosure than those with high emotional reactivity scores.

The study of emotional reactivity as an antecedent of interpersonal competence has emerged over the last decade and research, as shown by the studies reviewed here, has begun to establish a relationship between the two. Furthermore, in the attempt to refine these associations, researchers have looked at the different impact mothers and fathers have on interpersonal competence. Several researchers, among them Eisenberg et al. (2003) and Skowron et al. (2003), looked at different levels of emotional reactivity and the resulting pattern differences in interpersonal competence while others, like

McDowell et al. (2002) and Bartle-Haring et al. (2002) looked at different types of emotional reactivity.

Mirroring the themes that surfaced in the review of indirect family factors, there is a lack of emotional reactivity research using adolescent and young adult samples. Similarly, these studies establish a relationship between emotional reactivity and interpersonal competence while also highlighting individual differences in interpersonal competence using gender of parent as a control variable. Furthermore, as seen in the review of indirect family factors, researchers have endeavored to look at different aspects of emotional reactivity and the unique patterns of interpersonal competencies associated with them. Although common themes have arisen, the reviews of family and individual factors thus far have only included studies looking at a single factor's impact on interpersonal competence.

Studies Using Two Indirect Family and/or Individual Factors

Researchers have noted that the focus in the development of interpersonal competence literature has started to move from simply establishing relationships between single indirect family and individual influences and interpersonal competence to discovering the processes that explain these relationships (Contreras & Kerns, 2000; Ladd, 2005). Unfortunately, studies using more then one family or individual predictor variables are rare. Furthermore, the results from these studies are thus far equivocal (Mize et al., 2005).

Eisenberg and her colleagues (Eisenberg, Spinrad et al., 2004) have produced a number of interpersonal competence development studies using specific parenting dimensions and emotional reactivity together as predictor variables. Unfortunately, the

focus has been on emotional parenting dimensions like expressivity, coaching, or discussion (Denham, 1997; Eisenberg, 1998). Eisenberg, Gershoff et al. (2001), for example, found that emotional reactivity fully mediated the relationship between mothers' emotional expressivity and five and six year olds' social competence. Other parenting dimensions that are not solely emotion-focused, like closeness or communication, have received less attention. Furthermore, more than any other area in this review, there is almost a total lack of studies using adolescent and young adult samples. In fact, there is not a single article looking at the relationship between parent communication or closeness, emotional reactivity, and interpersonal competence in adolescents or young adults.

Wei et al. (2005) examined the influence of both attachment style and emotional regulation on college students' negative mood and interpersonal problems. Their emotional regulation construct had two types: emotional reactivity, characterized by a hyperactivating emotional style, and emotional cutoff, characterized by a deactivating emotional style. These types are similar to the active and passive emotional reactivity dimensions reviewed earlier (Bartle-Haring et al., 2002; Bartle-Haring & Probst, 2004). They proposed that these aspects of emotional regulation would mediate the relationship between attachment style and negative mood and interpersonal problems in unique ways. More specifically, emotional reactivity would mediate the relationship, but only for anxious attachment styles, while emotional cutoff would mediate the relationship only for avoidant attachment styles.

A total mediation model was confirmed for negative mood with the expected relationships between emotion regulation type and attachment style. In other words,

emotional reactivity fully mediated the relationship between anxious attachment style and negative mood while emotional cutoff fully mediated the relationship between avoidant attachment style and negative mood. Only a partial mediation model was confirmed for interpersonal problems although the expected relationships between emotion regulation type and attachment style remained the same.

Spanning the last three decades and using both concurrent and longitudinal data, Forehand and colleagues (Armistead et al., 1995; Forehand et al., 1987; Summers et al., 1998; Weirson & Forehand, 1992) and have produced several studies looking at family status and parent-child interactions and their impact on interpersonal competence. In 1987, for example, Forehand et al. conceptualized divorced family status and problem relationships with mothers and fathers as possible stressors. Although they found that marital status, mother-child relationships, and father-child relationships were each individually related to the social competence of young adolescents they also reported that the more stressors reported by an adolescent, the poorer their social competence.

Weirson and Forehand (1992) and Armistead et al. (1995) also found main effects for family status and parent-adolescent relationships in relation to adolescent's and young adult's interpersonal competence. However, Weirson and Forehand proposed that parent-adolescent relationships would mediate the relationship between family status and interpersonal competence. This hypothesis was not supported. Similarly, Armistead et al. proposed a longitudinal model linking family status to young adult's interpersonal competence through adolescent self-esteem and the mother-adolescent relationship. Only the adolescent self-esteem pathway, not the mother-adolescent relationship pathway, was supported.

Summers et al. (1998) looked at both the concurrent and longitudinal influence of family status and parent-adolescent relationships on young-adult adjustment. Young adult adjustment included measures of interpersonal competence, internalizing and externalizing problems, academic achievement, and attachment in romantic relationships. The only main effects found for family status were in relation to young adult's attachment in romantic relationships. This relationship was not mediated or moderated by the parent-child relationship either concurrently or longitudinally. In contrast, both concurrent and longitudinal measures of the parent-child relationship, particularly when the father was the identified parent, were predictive of several young adult adjustment variables.

Present Study

In summary, the study of the origins of interpersonal competence has been an area many researchers have noted is lacking over the years. Both indirect family and individual influences have been linked to the development of interpersonal competence. Additionally, relationships have been individually established with parent-child interactions, family processes, family status and emotional reactivity. Over the last several years research has begun to move from establishing these relationships to attempting to identify the processes that explain them. Studies investigating more than one of these factors, however, are few and findings are equivocal. No study has looked at each of the indirect family factors and emotional reactivity together.

The purpose of this study will be to examine the possible relationships between parent-child interactions, family status, family processes, and emotional reactivity in relation to young adult's interpersonal competence. Interpersonal competence will be

examined not only in general terms but also as a set of dimensions. These dimensions include disclosure, initiation, emotional support, negative assertion, and conflict management. As the literature suggests, relationships are expected between each of the independent variables and interpersonal competence. Furthermore, it is expected that the independent variables will account for the variance in general interpersonal competence as well as the variance in each of the interpersonal competence dimensions in unique and patterned ways.

METHOD

Data for this study comes from *The Relationship Competencies of Rural Adolescents and Young Adults* project executed by Dr. David Wright and Dr. Scott Ketring in 1997. The Human Subjects Review Board of Kansas State University granted approval of the project.

Participants

The 685 students who served as the participants for this study were volunteers from junior level Human Development and Family Studies courses. The majority of participants were female (female = 66.4%) and of European American ethnicity (European = 89.3%). The mean age of participants was 20.2 years (SD = 2.87). Most of the participants were attending a Midwestern state university (n = 577); the other participants were either enrolled in a neighboring christian college (n = 52) or involved in Job Corp (n = 56). For their participation, the students from the state university received extra credit points in their course. Participation in the christian college and job core samples was completely voluntary and participants did not receive any form of compensation.

Procedure

Students in junior level Human Development and Family Studies courses were recruited to participate in *The Relationship Competencies of Rural Adolescents and Young Adults* survey. The 18 page Relationship Competencies survey included a diverse

array of measures and questions designed to assess various aspects of intimate relationships. Students who agreed to participate where given verbal instructions before the administrations of the survey. Additionally, written instructions for each measure preceded the actual questions. Proctors were also available to clarify the questions and define words. Teachers at the Midwestern University allotted one 50-minute class period for those who wanted to participate for extra credit. Likewise, the program director at the christian college and Job Corp allotted time for those desiring to participate, however, did not offer extra credit. Students worked at their own pace and turned in their survey before leaving.

Measures

Several measures from *The Relationship Competencies of Rural Adolescents and Young Adults* survey were used to assess the association between family and individual factors and interpersonal competence.

Family Factors

Parent-Child Interactions:

Attachment. In their seminal work on adult attachment, Hazan and Shaver (1987) constructed the Romantic Attachment Scale (RAS), a 3-item, forced-choice measure called that allowed participants to categorize themselves into secure, avoidant, or anxious attachment styles. Participants were asked to choose one of the following paragraphs as typical of their feelings and comfort in relationships.

1. I find it relatively easy to get close to others and am comfortable depending on them. I don't often worry about being abandoned or about someone getting too close to me (secure type).

2. I am somewhat uncomfortable being close to others: I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more intimate than I feel comfortable being (avoidant type).

3. I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to get very close to my partner, and this sometimes scares people away (anxious/ambivalent type).

Hazan and Shaver found that these categories existed in similar proportions to Ainsworth's Strange Situation studies with infants (about 60% secure, 25% avoidant, and 15% anxious). In this study, 64.3% of the participants categorized themselves as securely attached, 42.3% as avoidantly attached, and 6.2% as anxiously attached. 5.7% of the participants had missing data.

Relationship closeness. Participants were asked to circle a response to the question 'How would you describe your relationship with your mother?'. The responses were on a 5-point, Likert- type scale ranging from 'not at all close' to 'very close'. The question was repeated for father, stepmother, and stepfather.

Parent-adolescent communication. The Parent-Adolescent Communication Scale (PACS; Barnes & Olson, 1985) was developed to measure the extent of openness or freedom of exchange related to ideas, information, and concerns between parents and their adolescent children. It is a 20 item, 5-point Likert-type scale composed of two subscales which measure degree of openness and extent of problems in family communication. The two subscales, labeled "open" and "problem," measure positive and negative processes and content issues in communication. Ten items measure positive

(open) and ten measure negative (problem) aspects of communication, respectively. The two subscales range from 10 to 50 with the higher score indicating either more open communication, or less of a problem in communication. Thus, the higher the score on the subscale, the better the communication between the adolescent and the parent. Participants answered a separate scale for their mother and their father (or stepmother/stepfather when applicable). The scale originators reported an alpha coefficient of .88 for the total scale, .87 for the open subscale, and .78 for the problem subscale. Reliability analysis in this study yielded high alpha coefficients for the total scale (α = .93) as well as the open (α = .93) and problem (α= .84) subscales.

Family Status

Participants were asked two demographic questions regarding the occurrence of separation and divorce in their family of origin. They responded yes or no; if the response was yes, the participants were directed to mark at what age the event (or events, if they happened numerous times) happened.

Family Process

The Family Satisfaction Scale (FSS; Olson & Wilson, 1982) is one of several scales developed using the Circumplex Model of Marital and Family Systems. It is a 14-item instrument designed to assess the level of satisfaction people have with their families functioning along two dimensions: cohesion and adaptability. Cohesion is defined as the emotional bonding that family members have toward one another. Adaptability is defined as the amount of change in family leadership, role relationships, and relationship rules. The scale originators reported an alpha coefficient of .92 for the total scale and a five-week test-retest correlation coefficient of .75. The scale was

originally designed to include two subscales, one each for the dimensions of cohesion and adaptability, but factor analytic studies did not support two separate factors (Olson & Wilson, 1982). The alpha coefficient in this study was .92.

Individual Factor

Emotional Reactivity

The Behavior and Emotional Reactivity Index (BERI; Bartle & Sabatelli, 1985) is a 20-item, self-report questionnaire that investigates how young adults respond to emotion-evoking situations with their parents. It attempts to measure the level of emotional reactivity in terms of automatic behavioral responses. There are ten negative scenarios each for mothers and fathers that tap situations in which the parents behave in age-inappropriate ways with the young adult, reject the young adult, or attempt to control the young adult. The respondent is then asked to report how likely he/she would be to respond in four different ways: counterattack, shut-out, psychologically withdraw, and lose it. An example of a BERI scenario is, "Sometimes mothers/fathers can make us feel upset or uncomfortable (e.g. angry, embarrassed, ashamed, etc.) by intruding in our personal affairs like asking personal questions about the people we're dating and/or giving us suggestions about what friends we should or should not have. When or if your mother/father does these sorts of things, how like you would the following responses be?". The responses are rated from (1) not at all like me to (4) very much like me. The young adult is also able to rate how often the scenario happens on a scale from one to ten.

The BERI can be used either as a total emotional reactivity score or as four separate subscale scores, with higher scores indicating higher emotional reactivity. Bartle and Sabatelli (1995) found preliminary evidence that the measure is

psychometrically sound, reliable, and valid constructively. They also found evidence for using the measure as a total score of emotional reactivity and as four subscale scores. The original internal consistency reliabilities for the BERI total scale and subscales ranged from .88 to .94. In this study, alpha coefficients for the total scale and subscales ranged from .96 to .97.

Outcome Variables

Interpersonal Competence

The Interpersonal Competence Questionnaire (ICQ; Buhrmester et al., 1988) is a 40-item questionnaire that assesses five domains of interpersonal competence. The ICQ was developed to remedy the emphasis in interpersonal competence assessment on global measures and sum scores. Most researchers in the field of interpersonal competence concur that interpersonal competence is a multi-faceted construct and that different competencies may be needed for different relationships as well as for different relationship stages. Drawing from many literatures involved in studying interpersonal competence, the ICQ establishes five distinct domains: initiation, negative assertion, disclosure, emotional support, and conflict management.

Each item of the ICQ briefly describes a common interpersonal situation and participants are asked to rate how comfortably they would handle the situation using a 5-point Likert-type scale ranging from 1–"I'm poor at this" to 5–"I'm extremely good at this". The ICQ can be used as a total interpersonal competence score or as five separate domain subscale scores. Buhrmester et al. (1988) found in their initial studies that the instrument showed internal and construct validity, was reliable, and that the domains were distinct.

They reported alpha coefficients on the total and domain scales ranging from .77 to .87. In this study, the alpha coefficients ranged from .78 to .92.

Proposed Analyses

For the research questions, simple multiple regression analyses will be conducted to determine which predictors (attachment, parenting, family status, family process, and emotion regulation) will be most associated with general interpersonal competence and each of the interpersonal competence dimensions. The regressions will tell us what portion of the variance in general interpersonal competence, as well as each of the interpersonal competence dimensions, is accounted for by what best combination of our predictors.

RESULTS

Preliminary Analyses

The total sample included 685 college students with a mean age of 20.2 (SD = 2.87). The majority of participants were female (66.4%), were raised in intact homes (86.2%), and were of European American ethnicity (89.3%). After running initial descriptive statistics, a portion of the sample was excluded from further analyses based on missing data. A case was excluded if the participant had missing data on more than 10% of the relevant study variables. The resulting study sample included 600 participants. Independent sample t-tests comparing the study sample with the excluded sample indicated no differences between the two groups on gender, age, ethnicity, or family status.

There were initially 29 possible independent variables when all subscales and total scales (for both mother and father when applicable) from all measures were considered. This number was reduced to 7 following preliminary analysis. Variables were excluded in a three step process. First, the parent-child communication and emotional reactivity measures yielded seven and seventeen variables respectively. The inclusion of all variables from these measures heightened the likelihood of violating one or more statistical assumptions underlying multiple regression analysis while reduction of the variables decreased this possibility and heightened the validity of any findings.

Correlations amongst the seven parent-child communication variables and the seventeen emotional reactivity variables were examined to verify significant correlations amongst all variables and allow for this reduction. All seven parent-child communication variables were significantly related at the $p = .01$ level. Four parent-child communication variables were excluded following this examination. They included the open and problem communication subscales for both mother and father. Similarly, all seventeen emotional reactivity variables were significantly related at the $p = .01$ level. Fourteen variables in all were excluded following this examination: each subscale variable (for mothers, fathers, and combined parent) as well as the total scale variables for mothers and fathers.

Second, the indirect family factors of attachment, parenting, and family process as well as the individual factor of emotional reactivity have conceptual and theoretical similarities. Thus, significant correlations were expected amongst all of these variables. Large correlations of .7 or higher (as suggested by Tabachnick & Fiddell, 2001), however, would suggest that the same concept was being measured, rather than distinct concepts. In the event of a large correlation of .7 or higher between two variables, the variable with the weakest correlation to interpersonal competence would be excluded from the regression analyses. As expected, all of the factors were significantly related. Only two correlations came close to the cutoff, however. The correlation between the closeness with mother score and the parent-child communication with mother total score was .7 and the correlation between the closeness with father score and the parent-child communication with father total score was .67. Given that the two parent-child communication scores were more strongly related to interpersonal competence ($r = .24$

for both mother and father scores) than the two closeness scores (r = .17 for mothers, r = .09 for fathers), the closeness scores were excluded as independent variables.

Third and finally, initial regression tests were run for further refinement of the final regression model and resulted in two changes. First, the attachment variable was dummy coded to include only two categories (securely and insecurely attached) rather than three (secure, avoidant, and anxious attachment). The anxiously attached category included too few subjects to be statistically powerful (n = 37) and as a result the anxious and avoidant attachment categories were combined to create one insecurely attached category (n = 183). Second, the parent-child communication total score variable and the emotional reactivity total score variable did not contribute significantly to the model and were excluded as independent variables.

Following the preliminary analysis, the final independent variables retained for the multiple regression model were attachment, parent-child communication (mother total and father total), family status, family process, and emotional reactivity (active total and passive total). Tables 1 and 2 present the mean and standard deviation for the independent and dependent variables respectively. Table 3 presents the correlation matrix for the independent variables and dependent variables.

Table 1

Means and Standard Deviations for the Independent Variables

	Attachment	Mother Communication	Father Communication	Family Satisfaction	Family Status	Active Emotional Reactivity	Passive Emotional Reactivity
Mean	.32	75.23	68.94	51.94	.13	81.93	65.43
Standard Deviation	.47	14.22	16.19	10.60	.34	26.90	24.28

Table 2

Means and Standard Deviations for the Dependent Variables

	IC Total	IC Disclosure	IC Emotional Support	IC Initiation	IC Negative Assertion	IC Conflict Management
Mean	144.57	27.95	26.97	27.97	27.72	33.97
Standard Deviation	19.58	5.25	5.10	5.93	5.84	5.02

Table 3

Correlations between Independent and Dependent Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1. Attach	--												
2. MomCom	-.22±	--											
3. DadCom	-.26±	.33±	--										
4. FamSat	-.23±	.53±	.60±	--									
5. Status	.06	-.04	-.20±	-.27±	--								
6. Active	.08*	-.20±	-.27±	-.21±	.06	--							
7. Passive	.13±	-.15±	-.26±	-.24±	.07	.35±	--						
8. Total	-.31±	.25±	.14±	.24±	-.01	-.19±	-.11+	--					
9. Disclos	-.40±	.21±	.10±	.17±	-.02	-.16±	-.07	.83±	--				
10. EmoSup	-.23±	.16±	.19±	.20±	.00	-.16±	-.28±	.72±	.53±	--			
11. Initiat	-.25±	.15±	.07	.16±	.00	-.15±	-.01	.76±	.57±	.37±	--		
12. NegAsst	-.10+	.15±	.04	.11+	.06	-.10+	-.01	.71±	.48±	.32±	.45±	--	
13. ConMan	-.15±	.25±	.12+	.24±	-.07	-.10+	-.06	.75±	.55±	.54±	.42±	.36±	--

Note. * $p < .05$, + $p < .01$, ± $p < .001$

1. Attachment, 2. Mother Communication, 3. Father Communication, 4. Family Satisfaction, 5. Family Status, 6. Active Emotional Reactivity, 7. Passive Emotional Reactivity, 8. Total Interpersonal Competence, 9. Disclosure, 10. Emotional Support, 11. Initiation, 12. Negative Assertion, 13. Conflict Management

Multiple Regression Analyses

To answer the research questions, six separate regression analyses were performed, with the total interpersonal competence scale or one of the individual interpersonal competence dimensions (disclosure, emotional support, initiation, negative assertion, and conflict management) as the dependent variable. The seven independent variables were entered simultaneously in each regression analysis. Results are presented in Tables 4 through 9 and include the unstandardized coefficients, standard error, and standardized coefficients for each regression analysis.

Table 4 presents the results from the regression analysis for the total interpersonal competence scale. All of the independent variables were significantly related ($r = -.11$ to $-.31$) to the dependent variable at the $p < .01$ level except for family status, which was not significantly related. Attachment, active emotional reactivity, and passive emotional reactivity were all significantly and negatively related to total interpersonal competence ($r = -.31, -.19, -.11, p < .01$). All other significant variables were positively related to the dependent variable. The total model explained 15% of the variance in total interpersonal competence ($p < .001$). Attachment made the strongest, significantly unique contribution to the variance in total interpersonal competence ($\beta = -.27, p < .001$) followed by family satisfaction ($\beta = .15, p < .01$), active emotional reactivity ($\beta = -.13, p < .01$), and mother communication ($\beta = .12, p < .01$). This indicates that young adults who were securely attached, satisfied with their family's cohesion and adaptability, were less actively reactive in emotion evoking situations, and rated the communication with their mother as open and lacking in problems had higher interpersonal competence scores.

Table 5 presents the results from the regression analysis for the interpersonal competence disclosure dimension. All of the independent variables except for family status and passive emotional reactivity were significantly related ($r = .10$ to $-.40$) at the $p < .01$ level to the disclosure dimension. Attachment and active emotional reactivity were significantly and negatively related ($r = -.40, -.16, p < .001$) to the dependent variable. All other significant variables were positively related to disclosure. The total model explained 18.7% of the variance in disclosure scores ($p < .001$). Mirroring the results in the total interpersonal competence regression, attachment made the strongest, significantly unique contribution to the variance in the disclosure dimension ($\beta = -.39$, $p < .001$). Descending in strength, active emotional reactivity ($\beta = --.13$, $p < .01$), mother communication ($\beta = .11$, $p < .01$), and father communication ($\beta = -.10$, $p < .05$) also contributed uniquely to the variance in the disclosure dimension. Similar to the total interpersonal competence regression, participants who were securely attached, reacted less actively in emotion evoking situations, and rated the communication with their mother as more open and less problematic had higher disclosure scores. However, participants with higher disclosure scores rated the communication with their father as less open and more problematic.

Table 6 presents the results from the regression analysis for the interpersonal competence emotional support dimension. All variables but family status were significantly related ($r = .16$ to $-.28$) to emotional support at the $p < .001$ level. All significant variables were positively related except for attachment ($r = -.23$), active emotional reactivity ($r = -.16$), and passive emotional reactivity ($r = -.28$) which were negatively related to emotional support. The total model explained 12.2% of the variance

in emotional support scores ($p < .001$). The strongest, significantly unique contributor to the variance was passive emotional reactivity ($\beta = -.21$, $p < .001$) followed by attachment ($\beta = -.17$, $p < .001$). This indicates that young adults who tended to respond less passively to emotion evoking situations and who were securely attached reported higher emotional support scores.

Table 7 presents the results from the regression analysis for the interpersonal competence initiation dimension. Mother communication and family satisfaction were both significantly and positively related ($r = .15, .16$) to initiation at the $p < .001$ level while attachment and active emotional reactivity were significantly and negatively related ($r = -.25, -.15$) to initiation at the $p < .001$ level. Passive emotional reactivity, father communication and family status were not significantly related. The total model explained 8.8% of the variance in initiation scores ($p < .001$). Attachment made the strongest, significantly unique contribution to the variance in initiation ($\beta = -.23$, $p < .001$) followed by active emotional reactivity ($\beta = -.14$, $p < .01$), family satisfaction ($\beta = .14$, $p < .05$), and father communication ($\beta = -.11$, $p < .05$). This indicates that participants who were securely attached, satisfied with their family's cohesion and adaptability, and reacted less actively in emotion evoking situations had higher initiation scores. However, participants with higher initiation scores rated the communication with their father as less open and more problematic.

Table 8 presents the results from the regression analysis for the interpersonal competence negative assertion dimension. The variables of mother communication and family satisfaction were each significantly and positively related ($r = .11, .15$) to initiation at the $p < .01$ level while attachment and active emotional reactivity were significantly

and negatively related ($r = -.10, -.10$) to initiation at the $p < .01$ level. Passive emotional reactivity, father communication and family status were not significantly related. The total model explained 3.1% of the variance in initiation scores ($p < .001$). Only active emotional reactivity was a significantly unique contributor to the variance ($\beta = -.09$, $p < .05$). Young adults who reacted less actively to emotion evoking situations had higher negative assertion scores.

Table 9 presents the results from the regression analysis for the interpersonal competence conflict management dimension. All variables but family status and passive emotional reactivity were significantly related ($r = -.10$ to $.25$) to conflict management at the $p < .01$ level. All significant variables were positively related except for attachment and active emotional reactivity, which were negatively related ($r = -.15, -.10$) to conflict management. The total model explained 7.7% of the variance in conflict management scores ($p < .001$). Mother communication made the strongest, significantly unique contribution to the variance in conflict management ($\beta = .16$, $p < .001$) followed by family satisfaction ($\beta = .15$, $p < .01$), and attachment ($\beta = -.10$, $p < .05$). This indicates that young adults who rated the communication with their mother as more open and less problematic, were satisfied with their family's cohesion and adaptability, and who were securely attached had higher conflict management scores. On further inspection, the distribution of the conflict management scale was highly and negatively skewed. In response to this, all outliers larger then ± 3.3 standard deviations were removed and the regression analysis rerun. No significant differences were found in the results.

Table 4

Multiple Regression Results with Total Interpersonal Competence as the Dependent Variable

	B	SE B	β
Constant	136.77±	6.73	
Attachment	-11.17±	1.69	-.27±
Mother Communication	.16+	.06	.12+
Father Communication	-.10	.06	-.08
Family Satisfaction	.27+	.10	.15+
Family Status	2.54	2.33	.04
Active Emotional Reactivity	-.10+	.03	-.13+
Passive Emotional Reactivity	.00	.03	-.01

Note. $R = .401$, Adjusted $R^2 = .150$, $p < .001$.
* $p < .05$, + $p < .01$, ± $p < .001$

Table 5

Multiple Regression Results with the Interpersonal Competence Disclosure Dimension as the Dependent Variable

	B	SE B	β
Constant	28.52±	1.76	
Attachment	-4.31±	.44	-.39±
Mother Communication	.04+	.02	.11+
Father Communication	-.03*	.02	-.10*
Family Satisfaction	.03	.03	.07
Family Status	.13	.61	.01
Active Emotional Reactivity	-.03+	.01	-.13+
Passive Emotional Reactivity	.01	.01	.03

Note. $R = .444$, Adjusted $R^2 = .187$, $p < .001$.
* $p < .05$, + $p < .01$, ± $p < .001$

Table 6

Multiple Regression Results with the Interpersonal Competence Emotional Support Dimension as the Dependent Variable

	B	SE B	β
Constant	27.61±	1.78	
Attachment	-1.88±	.45	-.17±
Mother Communication	.01	.02	.02
Father Communication	.01	.02	.03
Family Satisfaction	.04	.03	.08
Family Status	.85	.62	.06
Active Emotional Reactivity	-.01	.01	-.05
Passive Emotional Reactivity	-.04±	.01	-.21±

Note. $R = .365$, Adjusted $R^2 = .122$, $p < .001$.
* $p < .05$, + $p < .01$, ± $p < .001$

Table 7

Multiple Regression Results with the Interpersonal Competence Initiation Dimension as the Dependent Variable

	B	SE B	β
Constant	27.52±	2.11	
Attachment	-2.96±	.53	-.23±
Mother Communication	.02	.02	.04
Father Communication	-.04*	.02	-.11*
Family Satisfaction	.08*	.03	.14*
Family Status	.59	.73	.03
Active Emotional Reactivity	-.03±	.01	-.14±
Passive Emotional Reactivity	.02	.01	.08

Note. $R = .315$, Adjusted $R^2 = .088$, $p < .001$.
* $p < .05$, + $p < .01$, ± $p < .001$

Table 8

Multiple Regression Results with the Interpersonal Competence Negative Assertion Dimension as the Dependent Variable

	B	SE B	β
Constant	24.83±	2.14	
Attachment	-.98	.54	-.08
Mother Communication	.04	.02	.10
Father Communication	-.02	.02	-.06
Family Satisfaction	.05	.03	.09
Family Status	1.39	.74	.08
Active Emotional Reactivity	-.02*	.01	-.09*
Passive Emotional Reactivity	.01	.01	.05

Note. $R = .206$, Adjusted $R^2 = .031$, $p < .001$.
* $p < .05$, + $p < .01$, ± $p < .001$

Table 9

Multiple Regression Results with the Interpersonal Competence Conflict Management Dimension as the Dependent Variable

	B	SE B	β
Constant	28.29±	1.80	
Attachment	-1.04*	.45	-.10*
Mother Communication	.06±	.02	.16±
Father Communication	-.02	.02	-.06
Family Satisfaction	.07+	.03	.15+
Family Status	-.42	.62	-.03
Active Emotional Reactivity	-.01	.01	-.05
Passive Emotional Reactivity	.00	.01	.02

Note. $R = .298$, Adjusted $R^2 = .077$, $p < .001$
* $p < .05$, + $p < .01$, ± $p < .001$

DISCUSSION

Despite the vast literature on interpersonal competence, a significant deficit has been noted in the study of the origins of interpersonal competence. Furthermore, the majority of existing literature has focused on infant and child samples. Studies using adolescent and young adult samples are comparatively slim. They have also tended to concentrate on the impact of a single predictor variable rather than multiple predictor variables. The purpose of this study was to examine the possible relationships between several indirect family (parent-child interactions, family process, and family status) and individual factors (emotional reactivity) in relation to young adult's interpersonal competence.

One of the themes that arose from the review of literature was that each indirect family and individual factor used in this study was related to interpersonal competence. This pattern of association held true for all but the family status factor, where findings were contradictory as to whether a relationship with interpersonal competence existed or not. The results from this study corresponded to this pattern. Parent-child interaction variables included attachment and the specific parenting dimension of communication for mothers and fathers. Attachment was significantly and negatively related to not only the total interpersonal competence variable but to each of the interpersonal competence dimensions (disclosure, emotional support, initiation, negative assertion, and conflict management). Furthermore, it was a significantly negative, unique contributor to each of

the regression analyses except for the interpersonal competence dimension of negative assertion. In other words, insecurely attached young adults reported lower total interpersonal competence scores as well as lower interpersonal competence dimension scores than securely attached young adults.

Similarly, the specific parenting dimension of mother communication was significantly and positively related to all interpersonal competence variables. Mother communication was also a significantly unique contributor in the regression analyses of total interpersonal competence as well as the disclosure and conflict management dimensions of interpersonal competence. These contributions were positive. Thus, the higher the interpersonal competence scores, the more likely participants were to rate the communication with their mothers as open and problem-free. Father communication was significantly and positively related to all interpersonal competence variables except for the initiation and negative assertion variables. Interestingly, it only significantly contributed to the regression analyses of the disclosure and initiation dimensions of interpersonal competence. In addition these contributions were negative. Thus, the more likely young adults were to rate the communication with their fathers as open and problem-free, the lower they scored on disclosure and initiation. While the literature has begun to look at the unique influence of mothers and fathers on the development of interpersonal competence, no specific patterns were found in this review. While the results from this study are interesting, the influence of mothers and fathers on the development of interpersonal competence needs to be the sole focus of a future study.

The family process variable of family satisfaction was significantly and positively related to all interpersonal competence variables. However, it only contributed uniquely

to the regression analyses of total interpersonal competence, initiation, and conflict management. In other words, the more satisfied young adults were with the cohesion and adaptability in their families, the higher they rated themselves on total interpersonal competence, initiation, and conflict management.

Family status was the only indirect family factor that was unrelated to all of the interpersonal competence variables. Furthermore, it was not a unique contributor in any of the regression analyses. Interestingly, family status was significantly and negatively correlated with the indirect family factors of father communication and family satisfaction. These findings are similar to the results reported by Kesner and McKenry (2001) and Ruschena, Prior, Sanson, and Smart (2005) in which no association was found between family status and multiple adolescent outcomes. In fact, Ruschena et al. reported that the only differences found between intact and transition groups were in the family variables of attachment and marital conflict.

Mirroring previous studies on emotional reactivity (Bartle-Haring et al., 2002; Bartle-Haring & Probst, 2004, Skowron et al., 2003), the individual factor of emotional reactivity was split into active and passive categories for this study. Active emotional reactivity, representing the tendency of young adults to lose it or counterattack in emotionally evoking situation, was significantly and negatively related to all interpersonal competence variables. Furthermore, it was a significantly unique contributor to the regression analyses for total interpersonal competence, disclosure, initiation, and negative assertion. It seems the more young adults lost it, defended themselves, or counterattacked in an emotion evoking situation, the lower they scored on

overall interpersonal competence as well as on disclosure, initiation, and negative assertion.

Passive emotional support, however, was only significantly and negatively related to total interpersonal competence and the emotional support dimension. Also, it only uniquely and positively contributed to the regression analysis of the emotional support dimension. In other words, the more young adults psychologically or physically withdraw from emotion evoking situations the lower they score on the emotional support aspect of interpersonal competence.

Another theme that arose from the literature review was that researchers studying the development of interpersonal competence have begun to refine their findings using control variables like race and gender. An interesting control variable that has garnered attention in recent studies is gender of parent. Research has shown that mother-child and father-child interaction contribute differently to interpersonal competence (Laible & Carlo, 2004; Rice et al., 1997; Schneider & Younger, 1996). The control variable of gender of parent was investigated in this study using mother and father communication, a specific parenting dimension. Mother communication contributed uniquely and positively to the total interpersonal competence regression analysis as well as the disclosure and conflict management dimensions. Father communication, on the other hand, contributed uniquely and negatively to disclosure and initiation dimensions of interpersonal competence.

The refinement of findings was a feature of yet another theme that arose from the review of literature. Several researchers have begun to look at different aspects of predictor and/or outcome variables to reveal unique patterns in their results (Bartle-

Haring et al., 2002; Bartle-Haring & Probst, 2004; Bartle-Haring & Sabatelli, 1997; DiTommaso, Brannen-McNulty, Ross, & Burgess, 2003; Eisenberg et al., 2003; Jones & Houts, 1992; Levy, Wamboldt, & Fiese, 1997; Shoenrock, et al., 1999; Skowron, Holmes, & Sabatelli, 2003; Smith et al., 2001). In this study, different aspects of both emotional reactivity and interpersonal competence were examined. Emotional reactivity was divided into active and passive components. The higher the score on the emotional reactivity measure the more emotionally reactive the young adult rated himself/herself.

Both active and passive emotional reactivity were found to have unique relationships with interpersonal competence. Active emotional reactivity was more strongly and consistently related to interpersonal competence than passive emotional reactivity. Furthermore, active emotional reactivity contributed uniquely and negatively to total interpersonal competence, disclosure, initiation, and negative assertion. Interestingly, passive emotional reactivity only contributed to the emotional support dimension of interpersonal competence.

Different aspects of interpersonal competence were also examined for unique patterns. Interpersonal competence included not only a total score but the five dimensions of disclosure, emotional support, initiation, negative assertion and conflict management. There was a unique contribution pattern associated with each of the interpersonal competence variables. Attachment, family satisfaction, active emotional reactivity, and mother communication were the strongest contributors to the variance in total interpersonal competence scores. For the interpersonal competence dimension of disclosure, attachment, active emotional reactivity, mother communication, and father communication were the strongest contributors to the variance. Passive emotional

reactivity and attachment were the only significant contributors to the variance in emotional support dimension scores. Attachment, active emotional reactivity, family satisfaction, and father communication were the significant contributors to the variance in initiation dimension scores. Active emotional reactivity was the only significant contributor to the variance in negative assertion scores. Finally, mother communication, family satisfaction, and attachment were the significant contributors to the variance in conflict management scores.

These unique patterns of contribution to the variance in interpersonal competence scores answer the last theme found in the review of interpersonal competence origins literature. Specifically, there are few studies that have looked at more than one indirect family or individual factor's influence on interpersonal competence (Armistead, Forehand, Beach, & Brody, 1995; Eisenberg et al., 2003; Forehand, Middleton, & Long, 1987; Summers, Forehand, Armistead, & Tannenbaum; Weirson & Forehand, 1992; Wei, Vogel, Ku, & Zakalik, 2005). Furthermore, the findings from these studies have been equivocal (Mize, Pettit & Meece, 2000).

This study is the first to include the predictor variables of attachment, parenting, family process, family status, and emotional reactivity in the same study of interpersonal competence. All of these variables except for family status were associated with interpersonal competence, gender of parent variables were found to be associated in unique ways to interpersonal competence, and unique patterns were found for different aspects of the emotional reactivity variable. Most importantly, however, all of these variables contributed to the variance in interpersonal competence scores. Moreover,

unique patterns of contribution to this variance were found for the total interpersonal competence score and each of the interpersonal competence dimensions.

Limitations

One limitation of this study is that the sample of college students was one of convenience. The sample was highly homogenous. The majority of participants were from intact homes, were from the mid-western United States, and were of European American descent. Furthermore, the majority of the sample was female. This homogeneity did not allow the use of control variables such as age, gender, or ethnicity. This brings into question the generalizability of the findings.

A second limitation was the cross-sectional and single informant design of the study. Given the purpose of the study was to investigate the development of interpersonal competence, a longitudinal design would be beneficial but was beyond the scope of this study. Furthermore, data from parents, peers and teachers would possibly accentuate the findings.

A final limitation is that of instrumentation. Several of the instruments used in the initial data collection have been updated. Also, other instruments have been created since the data collection that would allow for investigation of different aspects of the variables. Measures of attachment, for example, have been created to allow participants to answer for each parent.

Future Directions

Future research should include more heterogeneous samples, multiple informants, and a longitudinal design to improve generalizability. Samples with adolescents and young adults from all age groups could compare differences by age

group in the influence of indirect family and individual factors on the development of interpersonal competence. The same argument can be made for gender and ethnicity. Research has indicated that these variables influence male and female interpersonal competence, as well as different ethnic group interpersonal competence, in different ways.

Future research could also improve upon the findings in this study by using different measures; particularly measures that allowed for further refinement of the associations between the predictor variables and interpersonal competence. Emotional reactivity was the only predictor variable that was divided into subscales in this study. Although this was done to reduce the number of variables used in the regression analyses, subscales of attachment, parenting, and family processes could have led to further refinement of the results. Additionally, more of the variables could have explored the differing influence of mothers and fathers on the development of interpersonal competence.

Finally, although the results in this study indicate that together the indirect family and individual factors contribute to the development of interpersonal competence, future research could do one of two things. First, the addition of other variables could further elucidate the associations found in this study. This could be done be including additional indirect family or individual factors or by including new factors such as direct family, peer, or environmental factors. Second, future research could look at the interactions between the indirect family and individual factors included in this study and the resulting association with interpersonal competence.

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APPENDIX: INSTRUMENTS

Romantic Attachment Scale (RAS; Hazan & Shaver, 1987)

Responses: Mark which of the following statements best describes your feelings.

Secure attachment

I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't often worry about being abandoned or about someone getting too close to me.

Ambivalent Attachment

I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more intimate than I feel comfortable being.

Anxious Attachment

I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to merge completely with another personal and this desire sometimes scares people away.

Parent-Adolescent Communication Scale (PACS; Barnes & Olsen, 1985)

Responses: 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree.

Open Communication Subscale

I can discuss my beliefs with my mother without feeling restrained or embarrassed.

My mother/father is always a good listener.

My mother/father can tell how I'm feeling without asking.

I am very satisfied with how my mother/father and I talk together.

If I were in trouble, I could tell my mother/father.

I openly show affection to my mother/father.

When I ask questions, I get honest answers from my mother/father.

My mother/father tries to understand my point of view

I find it easy to discuss problems with my mother/father.

It is easy for me to express all of my true feelings with my mother/father.

Problem Communication Subscale

Sometimes I have trouble believing everything my mother/father tells me.

I am sometimes afraid to ask my mother/father for what I want.

My mother/father has a tendency to say things to me that would be better left unsaid.

When we are having a problem, I often give my mother/father the silent treatment.

I am careful about what I say to my mother/father.

When talking with my mother/father, I have a tendency to say things that would be better left unsaid.

There are topics I avoid discussing with my mother/father.

My mother/father nags or bothers me.

My mother/father insults me when she/he is angry at me.

I don't think I can tell my mother/father how I really feel about some things.

<u>Family Satisfaction Scale</u> (FSS; Olson & Wilson, 1982)

Responses: 1 = very dissatisfied, 2 = somewhat dissatisfied, 3 = generally satisfied, 4 = very satisfied, 5 = extremely satisfied.

With how close you feel to the rest of your family?

With your ability to say what you want in your family?

With your family's ability to try new things?

With how often parents make decisions in your family?

With how much mother and father argue with each other?

With how fair the criticism is in your family?

With the amount of time you spend with your family?

With the way you talk together to solve family problems?

With your freedom to be alone when you want to?

With how strictly you stay with who does what chores in your family?

With your family's acceptance of your friends?

With how clear it is what your family expects of you?

With how often you make decisions as a family, rather than individually?

With the number of fun things your family does together?

<u>Behavioral and Emotional Reactivity Index</u> (BERI; Bartle & Sabatelli, 1995)

Responses: 1 = very much like me, 2 = like me, 3 = somewhat like me, 4 = not at all like me for each response category: withdraw, counterattack, shut out, or lose it.

Sometimes mothers can make us feel upset or uncomfortable (i.e. angry, embarrassed, ashamed, etc.) by intruding in our personal affairs, like asking personal questions about the people we are dating, and/or giving us suggestions about what friends we should or should not have. When or if your mother does these sorts of things, how like you would the following responses be? (repeat for fathers)

Sometimes fathers can make us feel angry or annoyed by trying to make decisions for us or by questioning the decisions we've made, like career choice, or choice of a college major, or deciding to get more education, or deciding where we should live etc. When or if your father does these sorts of things, how like you would the following responses be? (repeat for mothers)

Sometimes mothers can make us feel annoyed or upset by treating us like a child in front of others, telling others things we'd hoped they would keep to themselves, telling others things about us that are none of these people's business etc. When or if your mother does these sorts of things, how like you would the following responses be? (repeat for fathers)

Sometimes fathers can make us feel embarrassed or upset by trying to act younger then they are joining in with our friends, by doing foolish things, like drinking too much, talking too loud, or saying stupid things. When or if your father does these sorts of things, how like you would the following responses be? (repeat for mothers)

Sometimes mothers can make us feel upset, guilty or ashamed because we haven't done something that they expected us to do, like go to a family dinner, or reunion, or some other family event, or because we haven't spent enough time with them.

When or if your mother does these sorts of things, how like you would the following responses be? (repeat for fathers)

Sometimes fathers can make us feel guilty or upset or ashamed because we don't appreciate what they've done for us. When or if your father does these sorts of things, how like you would the following responses be? (repeat for mothers)

Sometimes mothers can make us feel guilty or ashamed or upset because we don't accept their views on things like religion, relationships, career choices, etc. When or if your mother does these sorts of things, how like you would the following responses be? (repeat for fathers)

Sometimes fathers can make us feel upset, annoyed, or irritated by giving us advice we didn't ask for by stating their opinions as facts or by disagreeing with us based on their limited view, or just by thinking they are always right. When or if your father does these sorts of things, how like you would the following responses be? (repeat for mothers)

Sometimes mothers can make us feel upset by asking us to choose sides in their arguments with other family members. When or if your mother does these sorts of things, how like you would the following responses be? (repeat for fathers)

Sometimes fathers can make us feel angry or upset by asking our opinions on things and then telling us we're wrong somehow, or by asking us what we think when what they really want is for us to agree with them. When or if your father does these sorts of things, how like you would the following responses be? (repeat for mothers)

Interpersonal Competence Questionnaire (ICQ; Buhrmester et al., 1988)

Responses: 1 = I'm poor at this: I'd be so uncomfortable and unable to handle this situation I'd avoid it if possible, 2 = I'm only fair at this: I'd feel very uncomfortable and would have lots of difficulty handling this situation, 3 = I'm O.K. at this; I'd feel somewhat uncomfortable and have some difficulty handling this situation, 4 = I'm good at this; I'd feel quite comfortable and able to handle this situation, 5 = I'm extremely good at this; I'd feel very comfortable and could handle this situation very well.

Initiation Subscale

Asking or suggesting to someone new that you get together and do something, e.g. go out together.

Finding and suggesting things to do with new people who you find interesting and attractive.

Carrying on conversations with someone new who you think you might like to get to know better.

Being and interesting and enjoyable person to be with when first getting to know people.

Introducing yourself to someone you might like to get to know (or date).

Calling (on the phone) a new date/acquaintance to set up a time to get together and do something.

Presenting good first impression to people you might like to become friends with (or date).

Going to parties or gatherings where you don't people well in order to start up new relationships.

Negative Assertion Subscale

Telling a close companion you don't like a certain way s/he has been treating you.

Saying 'no' when a new date/acquaintance asks you to do something you don't want to do.

Turning down a request by a close companion that is unreasonable.

Standing up for your rights when a close companion is neglecting you or being inconsiderate.

Telling a date/acquaintance that s/he is doing something that embarrasses you.

Confronting your close companion when s/he has broken a promise.

Telling a close companion s/he has done something to hurt your feelings.

Telling a date/acquaintance s/he has done something that made you angry.

Disclosure Subscale

Revealing something intimate about yourself while talking with someone you're just getting to know.

Confiding in a new friend/date and letting him/her see your softer, more sensitive side.

Telling a close companion some things about yourself that you're ashamed of.

Letting a new companion get to know the 'real' you.

Letting down your protective 'outer shell' and trusting a close companion.

Telling your close companion about the things that secretly make you anxious or afraid.

Telling a close companion how much you appreciate and care for him/her.

Knowing how to move a conversation with a date/acquaintance beyond superficial talk in order to really get to know each other.

Conflict Management

Being able to admit that you might be wrong when a disagreement with a close companion begins to build into a serious fight.

Being able to put begrudging (resentful) feelings aside when having a fight with a close companion.

When having a conflict with a close companion, really listening to his/her complaints and not trying to 'read his/her mind'.

Being able to take a close companion's perspective in a fight and really understand his/her point.

Refraining from saying things that might cause a disagreement with a close companion to turn into a big fight.

Being able to work through a specific problem with a close companion without resorting to global accusations ('You always do that').

When angry with a close companion, being able to accept that s/he has a valid point of view even if you don't agree with that view.

Not exploding at a close companion (even when it is justified) in order to avoid a damaging fight.

Emotional Support Subscale

Helping a close companion work through their thoughts and feelings about a major life decision, for example, a career choice.

Being able to patiently and sensitively listen to a close companion 'let off steam' about outside problems s/he is going through.

Helping a close companion get to the heart of a problem s/he is experiencing.

Helping a close companion cope with family or roommate problems.

Being a good and sensitive listener with a close companion who is upset.

Being able to say and do things to support a close companion when s/he is feeling down.

Being able to show genuine empathetic concern when a close companion needs to talk about a problem (which may or may not interest you).

When a close companion needs help and support, being able to give advice in ways that are received well.