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**AN INVESTIGATION OF THE RELATIONSHIP BETWEEN THE FAMILY
OF ORIGIN AND SELECTED CAREER DEVELOPMENT OUTCOMES**

by

Timothy Dean Dodge, B.A., M.A.

**A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy**

**COLLEGE OF EDUCATION
LOUISIANA TECH UNIVERSITY**

May 2001

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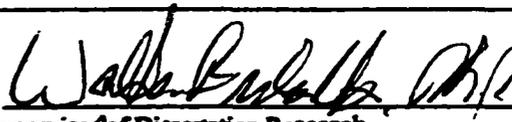
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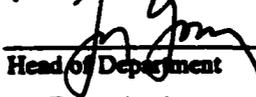
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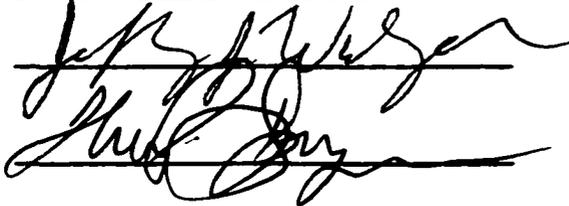


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ABSTRACT

The present study was designed to examine, from the perspective of Bowen family systems theory (Papero, 1990) and Williamson's theory of personal authority in the family system (Williamson, 1981, 1982a, 1982b), the impact of family dynamics on the career development of college students and to overcome methodological weaknesses of prior research in this area. Methodologically, the present study overcomes weaknesses of prior research by providing a unifying theory from which measures of family dynamics are derived and by measuring career outcomes which are logically tied to family dynamics. Career outcome measures selected for the study include vocational identity, career decision-making self-efficacy, and dysfunctional career thoughts. The final sample obtained for this study was 243 college students who completed demographic questions, the Personal Authority in the Family System Questionnaire, college version (PAFS-QVC; Bray & Harvey, 1992), My Vocational Situation (MVS; Holland, Daiger, & Powell, 1980), the Career Decision-Making Self-Efficacy Scale, short form (CDMSE-SF; Betz, Klein, & Taylor, 1996), the Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon, & Saunders, 1994), and the Family Environment Scale (FES; Moos & Moos, 1994). The research hypotheses were tested using multiple regression. The results of the present study support the extension of Bowen family systems theory and Williamson's theory of personal authority in the family system into the realm of career development. Personal authority was

found to be associated with vocational identity and career decision-making self-efficacy. Conflict in the family of origin was associated with lower career decision-making self-efficacy, lower individuation from the family of origin, and greater levels of dysfunctional career thoughts. Along with adding to the research base in the area of the impact of the family of origin on the career development of young adults, the findings of the present study also have implications for counselors working with college-aged and younger populations. For example, family systems therapy designed to minimize conflict in the family of origin would be expected to have a positive impact on the career development of children and young adults. The results may also be useful in providing suggestions for future research.

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Author Ti Dodge

Date 5-18-01

DEDICATION

This dissertation represents the culmination of my education, professional experience, and hard work through three degree programs. As such, I dedicate this paper to my parents, Larry and Sylvia Dodge. Without them, neither this paper, nor the work that came before, would have been possible. Their pride in me and belief in my ability means more to me than I can express. I wish to express my deepest love and thanks for their constant support.

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CHAPTER 1

INTRODUCTION

Introduction to the Problem

The impact of the family of origin on the development of adolescents and young adults has been discussed by developmental theorists (Blos, 1979), counseling theorists (Adler, 1938; Erikson, 1968; Rogers, 1951, 1961), family systems theorists (Minuchin, 1974) and career developments theorists (Havinghurst, 1964; Roe, 1957, Super, Savikas, & Super, 1996) for many years. However, theory in this area has not typically been informed by research. Many of these theories propose a developmental need to weaken bonds with parents and caretakers and form new bonds with peers during adolescence and young adulthood (Blos, 1979; Minuchin, 1974). One of the primary developmental task of adolescence is characterized by separation from parents and the development of an identity as an individual, an identity which is separate from the family of origin. This is particularly true in early theories of career development (Havinghurst, 1964; Roe, 1957). Recently, attachment theory has been used to investigate the role of parental attachment in the career development of young adults, testing beliefs that have, until now, been taken for granted by many theorists. For example, the assumption that one of the normative developmental task of young adults is one of separating from parents and orienting to the world of work

has been largely unsupported in the literature. Research has recently been conducted from an attachment theory perspective to investigate the role of separation from parents in the career adjustment of young adults (Blustein, Walbridge, Friedlander, & Palladino, 1991; O'Brien, 1996; Penick & Jespen, 1992; Thomason & Winer, 1994). Thomas & Winer (1994) examined the relationship between psychological separation from parents and career maturity in college students. Separation from parents was not related to career development attitudes or career orientation. Two other studies from an attachment theory perspective (Blustein et al., 1991; O'Brien, 1996) found that various forms of attachment, rather than separation, were related to career commitment and career self-efficacy. These findings were contrary to dominant theoretical thought in the area which describes separation from parents as an important developmental task in career development. Some of the studies in this area have been criticized for measurement problems such as utilizing unidimensional measures of family functioning (e.g., parent-child bond) and failing to measure the entire family as a functioning whole. Family systems theory has been utilized as a different paradigm from which to investigate this phenomena.

Family systems theory is a perspective well suited for examining interpersonal relationships because it accounts for dynamic forces within the family unit as a whole, examining the ways in which families interact in terms of closeness and conflict, as well as the ways in which families are organized and structured. Research has been conducted investigating the impact of the family of origin on career development. Johnson, Buboltz, & Nichols (1998) found that a supportive family style (i.e., high cohesion and expressiveness and low conflict) is related to the development of vocational identity. Two

other studies have supported the impact of the family of origin on career decision-making self-efficacy (Blustein, Walbridge, Freidlander, & Palladino, 1991; Whiston, 1996). Although this line of investigation is only recently begun, family systems theory has demonstrated promise in providing a new perspective in examining the impact of the family of origin on career development.

The literature examining the impact of the family of origin on the career development of young adults from a family systems perspective has been criticized for not adequately specifying and measuring family dynamics, not using measures of family functioning that are theoretically derived, and for other measurement problems. The current study is designed to address these problems. The present study adopts the perspective Bowen family systems theory (Papero, 1990) and Williamson's theory of personal authority in the family system (Williamson, 1981, 1982a, 1982b) in selecting measures of family dynamics and family functioning and in selecting measures of career development that are expected to be impacted by the family of origin. The current study was designed to assess the impact of the family of origin on career identity, career self-efficacy, and career thoughts.

Review of the Literature

One of the most consistent findings from the literature on human growth and development and related lines of inquiry has been the important role of relationships in human development. Theorists from such diverse orientations as Individual Psychology (Adler, 1938), humanistic psychotherapy, (Rogers, 1951, 1961), attachment theory (Ainsworth, 1989; Bowlby, 1982), developmental theory (Blos, 1979), career development

theory (Super, Savikas, & Super, 1996; Havinghurst, 1964), and family systems theory (Bowen, 1978; Haley, 1976, 1996; Minuchin, 1974) have emphasized the importance of relationships and interpersonal connectedness as necessary for adaptive functioning and development. Living in relationship with others is so fundamental to human existence that the quality of interpersonal relationships profoundly affects physical and psychological health and well-being (Bray, Harvey, & Williamson, 1987).

Many theories in psychology discuss influences of adults and caretakers on the development of children during childhood (i.e., pre-adolescence). The need for bonding with caregivers during childhood and the importance of adult role models on child development has been theorized by developmental theorists (e.g., Ainsworth, 1989) as well as career development theorists (e.g., Havinghurst, 1964). Such theories posit the need to weaken bonds with parents and caretakers and form new bonds with peers during adolescence and young adulthood (Blos, 1979; Minuchin, 1974). The primary developmental task of adolescence and young adulthood is described as separation from parents and development of an individual identity, an identity that is independent from the family of origin. Havinghurst may be the first such theory from the career development literature.

Havinghurst's theory synthesizes theory from the ego-psychoanalytic tradition (Erikson, 1959) and Super's life-span, life-space approach to career development (Super, 1957) to delineate stages of vocational development in children and young adults. His first three stages encompasses ages 5 to 25 years. The first stage "Identification as a Worker" encompasses the ages of 5 to 10 and involves the development of the concept of working

a part of the ego-ideal. The second stage “Acquiring the Basic Habits of Industry” encompasses the ages of 10 to 15 years and involves establishing basic work habits such as organizing time and prioritizing work over play. During this stage the father is an important influence on the developing child, serving as a role model for industrious behavior. The third stage “Acquiring Identity as a Worker in the Occupational Structure” encompasses the ages of 15 to 25 years and involves choosing and preparing for an occupation. The normative developmental tasks of this stage involve establishing mature relationships with peers and developing emotional independence from adults. The importance of the family of origin’s social class is also discussed as part of the theory because social class backgrounds provide different vocational expectations (p. 221). The important task throughout the theory is the development of occupational identity, an intrapsychic concept as a worker in a particular kind of work. The theory explicitly accounts for the influence of the family only in terms of the family’s social class impacting occupational expectation and the role modeling of fathers.

As mentioned earlier, Havinghurst’s theory borrowed from Super’s (1957) life-span, life-space theory of career development. Super’s theory represented a major advancement in career development theories because it examined career development as a life-long process rather than a discreet decision made during young adulthood (Super, Savikas, & Super, 1996). This is a life-span developmental perspective of an individual’s career in the work role. Super describes a series of life-stage tasks to account for the series of predictable choices and changes in structuring a life over time. The task during adolescence and young adulthood is the life stage of Exploration and encompasses the ages of 14 to 24 years. It is

during this stage that a recognizable vocational identity emerges, corresponding to occupational preferences. Career adaptability, the ability and preparedness to make educational and vocational choices, begins to emerge and develop during this stage. This impetus for career adaptability is psychosocial in nature and is the result of expectations of teachers and family members. However, while this impact of the family of origin on the expectations of the individual is mentioned in Super's theory, Super does not elaborate specific mechanisms through which the family impacts career development. Rather, the theory is largely intrapsychic in nature, hinting at the impact of the family of origin without explaining this impact except in general terms. The first modern line of investigation examining the mechanisms of the impact of the family of origin on the career development of young adults came from an attachment theory perspective.

Research has recently been conducted from an attachment theory perspective to investigate the role of separation from parents in the adjustment of young adults (Blustein, Walbridge, Friedlander, & Palladino, 1991; O'Brien, 1996; Penick & Jespen, 1992; Thomason & Winer, 1994). Studies in this area have been consistent but contrary to the predictions of attachment theory. Thomason and Winer (1994) examined the relationship between psychological separation and career maturity in college students. Psychological separation was operationalized as potentially taking four forms; functional independence or the ability to manage one's own affairs, attitudinal independence or having one's own values and beliefs unique from one's parents, emotional independence which is described as having less need for approval and emotional support from one's parents, and conflictual independence which is defined as freedom from excessive anxiety, guilt, and anger with

one's parents. None of these four forms of separation from parents were found to be related to either career development attitudes or career orientation (i.e., one subscale score and the total score from the Career Development Inventory; Super, Thompson, Lindeman, Jordaan, & Meyers, 1979). O'Brien found that for college women aspects of attachment rather than separation (i.e., similarity of attitudes to their mothers, reliance on their mothers for assistance in daily functioning, and conflictual feelings toward their mothers) predicted the attainment of career self-efficacy and moderate levels of career orientation and career realism. Blustein et al. (1991) found that psychological separation, as defined by Thomason & Winer, was unrelated to career indecision and career decision-making self-efficacy. Blustein et al. (1991) also found that attachment to fathers and attitudinal dependence on fathers, rather than psychological separation from parents, was related to career commitment for college men. These findings are contrary to dominant theoretical thought in the area which describes separation from parents as an important developmental dynamic in adolescence.

Studies investigating separation have yielded interesting findings concerning the role of conflict with parents in the career development of college students. Several studies have investigated the impact of conflictual independence from parents in several different career outcomes (Blustein et al., 1991; Kenny; O'Brien, 1996). These studies have consistently found conflictual independence from parents (def. "freedom from feelings of guilt, anxiety, anger, and resentment toward parents"; Kenny, 1990, p. 44) to be related to adjustment to college where adjustment was operationalized as assertiveness, dating competence, and career planning.

Other studies have noted the detrimental effect of parent-child conflict as well as conflict between parents on adolescent adjustment. Lopez, Campbell, and Watkins (1988) found that conflicted parent-child relationships are associated with poorer adjustment to college. This study again indicates the importance of conflictual independence from parents in the general adjustment of college students. Parent-child conflict was found to impede vocational identity development, while conflictual independence predicted women's vocational identity.

Other research (Blustein et al., 1991) has investigated the role of conflictual independence from parents in the process of commitment to the career choice process and to the tendency to foreclose which involves making a career choice prematurely, before a range of options has been considered. Commitment to the career choice process is a concept derived from the theory of Super (1957) and is positively related to the number of occupations under consideration, the amount of career exploration, career indecision, occupational certainty, and decisional stress. The tendency to foreclose is derived from Super's life-span, life-space theory of career development and is positively related to the number of occupations under consideration, tolerance of ambiguity, need for cognitive structure, autonomy, and the foreclosed ego identity status. For both men and women conflictual independence was found to be positively related to commitment to the career choice process and negatively related to the tendency to foreclose.

Kenny has called for further research to investigate the impact of parental conflict on the value of attachment. The research on both separation and independence leads to the conclusion that either distancing from parents does not play the contributory role in

adolescent adjustment that has been theorized or that the relationship is more complex than first thought. While separation has been addressed in the literature, the value of attachment of adolescents to parents as well as developmental changes in attachment patterns have largely been ignored. The obvious exception to this trend can be found in studies investigating adolescent launching from the parental home from an attachment theory perspective (Ainsworth, 1989; Bowlby, 1982).

Attachment theory has explored adolescents' connectedness with family and peers (Blustein et al., 1991; Kenny, 1990; Lopez et al., 1988; O'Brien, 1996). One of the originators of attachment theory, Bowlby (1982), explained stranger anxiety in infants by suggesting that some events are so frequently associated with danger that they become biologically programmed. Fear of strangers during the first year of life is one such event. However, during their second year, infants begin to explore their environment by using their caregivers as a secure base. By staying close to adults who have demonstrated that they are willing to protect him or her, the infant is able to engage in the second class of biologically programmed behavior; exploration and manipulation of and learning about the novel objects in his or her environment. It is the initial bonding with caregivers that allows for feelings of safety and security in exploration of the environment. Kenny (1987) asked college students to describe their relationship with their parents. It was found that these young adults tended to describe their parents in terms of Ainsworth's (1989) secure attachment type. Most of the college students tended to perceive their parents as encouraging their independence and remaining available as sources of support in times of need. These students reported that in times of stress they tended to seek more than a

moderate amount of help from their parents. This study of college students supports the prediction of attachment theory that successful young adults use parents as a secure base from which to explore of the world.

This exploration of the environment is theorized in turn to foster social competence. Empirical studies have found the theorized connection between social competence and attachment to parents in college-aged young adults (Bell, Avery, Jenkins, Feld, & Schoenrock, 1985; Kenny, 1990). Bell et al. (1985) investigated the relationship between perceived social competence and closeness to parents and siblings. Family bonds were found to be positively related to social competence as measured by social self-esteem, instrumentality, expressiveness, shyness, and degree of satisfaction and ease in same-sex and opposite-sex peer relationships. Kenny found maturity in career planning to be positively related to closeness to parents. As described earlier O' Brien (1996) also found career development to be positively associated with attachment to parents. These findings of a positive role for parental attachment in college-aged young adults are rather surprising given that attachment theory predicts that parent-child bonds should be beneficial at the second year of life. These findings of a positive role of parent-child attachment into the adolescent and young adult years are, similar to the negative findings for the role of separation, contrary to dominant thought in the developmental literature which describes separation from parents and the establishment of an individual identity as a normative developmental task. Attachment theory has, therefore, provided a means of assessing the value of these relational dynamics on adjustment during adolescence.

Attachment theory has also provided a means of investigating the impact of parental attachment on career development. Attachment theory has led to several investigations which have examined the relationship between connectedness and separation and career development (Blustein et al., 1991; Kenny, 1990; Lopez et al., 1988; O'Brien, 1996; Penick & Jespen, 1992; Thomason & Winer, 1994). The assumption that the process of normal career development during young adulthood is one of separating from parents and forming an autonomous identity has not been supported (Thomason & Winer). Rather, research suggests that attachment contributes to the career development of adolescents and young adults. For example, O'Brien found that for female high school seniors closeness to parents is positively related both to choosing a career that is consistent with ability and to self-efficacy in choosing a career. Other research involving college-aged women has found that attachment to parents is related to psychological health and social competence (Kenny & Donaldson, 1991). Josselson (1987) studied the role of attachment in identity formation. It was found that women who had achieved the greatest level of vocational identity, those who had passed through the exploration stage and had self-chosen careers, possessed moderate levels of both separation and attachment to parents. Attachment to parents has also been associated with maturity in career planning for both women and men (Kenny). Attachment researchers have called for additional studies to identify the specific aspects of closeness which contribute to adjustment and career development in college students (Kenny). As mentioned earlier, attachment researchers have also noted the need to investigate the impact of conflict on the value of attachment. Another line of inquiry

involving family systems theory' s predictions concerning the impact of family dynamics on career development began in response to these needs.

Interest in the family' s influence on career development is not new. It can be traced back to Roe' s (1957) work on the impact of parenting styles on career orientation. Family systems theory, like other developmental theories, describes a need for young adults to separate from parents during late adolescence. It also predicts problems for young adults who experience difficulty in adequately separating from parents (Haley, 1976). Family systems theory describes dynamic forces within the family which determine the quality of interpersonal relationships (e.g., cohesiveness, expressiveness, conflict) as well as structural forces (e.g., power and control) which organize family interactions (Minuchin, 1974). These relational dynamics hold the promise of providing a means of describing parents-child relationships and interactions in a richer and more complex way than simply describing family interaction as a univariate phenomena (i.e., degree of attachment or level of conflict). The relational dynamics described by family systems theory have been investigated for their impact on the attainment of vocational identity (Johnson, Buboltz, & Nichols, 1998). It was found that expressiveness; the extent to which family members are encouraged to openly and directly express their feelings toward each other; and cohesion; the degree of commitment, help, and support family members provide one another; are positively related to vocational identity while conflict; the amount of openly expressed anger, aggression, and conflict among family member; is negatively related to vocational identity. This style of family interaction has been labeled by Bray, Williamson & Malone (1984a) as the supportive family style. That is, these families provide emotional support

and allow for verbal expressiveness while maintaining a low level of conflict. These findings are consistent with those of Mallinckrodt (1992) who found that a warm, responsive parenting style is positively related to social self-efficacy. It has been proposed that some family relational patterns can facilitate career decision-making. However, the relationship between family cohesion and adaptability and career decisiveness has received mixed support in the literature (Eigen, Hartman, & Hartman, 1987). They failed to find a relationship between career indecision and these family dynamics. However, overall, studies in this area clearly indicate that family relational dynamics that account for the interaction of the entire family unit do indeed play a role in the career development of young adults. The organizational forces within families have also been investigated for their impact on career development (Penick & Jespen, 1992). It was found that perceptions of whole family unit interaction is related to vocational identity. Specifically, high school students perceptions of system maintenance dimensions which describe the organizational style and leadership style of parents contributed more to the career development than relationship factors. They found that these students perceived locus of control and perceived conflict within the family was associated with these students' vocational identity.

Bowen's Theory of Differentiation of Self

Bowen family systems theory (Papero, 1990) is a theory of family organization and individual functioning which provides an alternative means of conceptualizing family dynamics operating within individuals and families, influencing their behavior and interactional patterns. The theory's core concept is differentiation. "(Bowen) Family

systems theory assumes the existence of an instinctually rooted life force (differentiation or individuality) in every human being that propels the developing child to grow to be an emotionally separate person, an individual with the ability to think, feel, and act for himself' (Kerr & Bowen, 1988, p. 95). Bowen describes every child as being born into a primary triangle comprised of two parents and child which is filled with emotional activity. From birth the child is progressing toward independence from this triangle; eating, moving, and speaking with decreasing dependence on the parents. The child becomes increasingly able to make decisions and judgements for itself. The parents are also moving from being totally responsible for the welfare of their child to permitting the child to become more independent. This increasing independence of thoughts, emotions, and behavior from those of the parents is the essence of differentiation.

According to Bowenian theory it is imperative that the parents permit the child to learn to manage self while they contain their natural urge to do for the child. To the degree that the parents are unable to contain their desire to do for the child, the child's development toward independence is impeded and differentiation from the parents is impeded. The result is that the child maintains a degree of dependence on the parents which affects their emotional, cognitive, and behavioral development. The child is unable to assume complete responsibility for self, particularly during times of mounting tension, anxiety, or stress. This establishes an emotional need for another person. Another result of parents assuming responsibility for the child is that the child becomes attuned to the emotional state of the parents. This establishes a pattern of emotional reactivity during

times of stress or tension which affects the individual's behavior in response to intimate others. This emotional reactivity affects the individual throughout life.

The individual who is poorly differentiated from their family of origin is heavily influenced by subjectivity and emotionality. This intense emotionality does not allow the individual to think and act independently of the parents. Actions are made in reaction to others rather than being self-determined and self-generated. Their self-concept is derived from their relationships with others. Much of their energy goes into loving and being loved by others. Their behavioral reactions are based on feeling responses rather than objectivity. They are unable to distinguish between feelings and thoughts within self and others and are unable to use this ability to solve problems and make decisions.

The essence of differentiation is the ability of the individual to act in a goal-directed, objective manner, even in the face of mounting anxiety and tension within the self or within the family. For an individual who is well differentiated from their family of origin, the child's relationship with each parent and the parents' relationship is not dominated by subjectivity and emotionality. Low pressures for togetherness allow the child to learn to think, feel, and act for himself. The child's self-image is not created through a need to gain acceptance and approval. Rather, the child's beliefs, convictions, and values are arrived at through introspection and are consistent with one another. The individual is able to make decisions objectively and to act according to thought rather than affect.

Bowen (1978) describes individuals with high levels of differentiation as possessing the following characteristics; being principle-oriented and goal-directed, certain of their convictions, but not rigid in their thinking, able to hear and evaluate viewpoints of others

to discard old beliefs, sure enough in themselves not to be affected by praise or criticism, and respectful of self and identity of others without becoming critical or emotionally involved in trying to modify the life course of another. They assume total responsibility for self, are sure of their responsibility to family and society, and are realistically aware of their dependence on their fellow humans without exploiting or manipulating others to satisfy their needs.

Zingaro (1983) and Lopez and Andrews (1987) were among the first researchers to extend the family systems theory of Bowen (1978) into the area of career development. Zingaro and Lopez and Andrews theorize that college-aged adults who experience difficulty with career indecision do so because of low levels of differentiation of self from parents. These individuals are hypothesized to be experiencing difficulty separating their own desires and goals from the desires and goals of important people in their lives. Bowenian family systems theory provides differentiation of self as an important dynamic theorized to impact career decision-making and other important aspects of career development, including vocational identity formation. Kinnier, Brigman, and Noble (1990) examined the relationship between differentiation and career indecision. Hypothesized relationships were found, including a positive relationship between age and educational level and career decisiveness, as well as a negative relationship between level of differentiation and career indecision. These researchers have demonstrated that Bowen family systems theory can be extended into the area of career development.

**Williamson's Theory of
Personal Authority in the Family System**

Donald Williamson (1981, 1982a, 1982b) has elaborated upon Bowen's concept of differentiation. Low differentiation, that is, a lack of "termination of the hierarchical boundary between these adults and their older parents (1981, p. 441)" is frequently manifested in the symptomology with which people present in psychotherapy; "chronic dependency, sexual disappointment, affective deadness, endless squabbling, chronic low self-esteem, or inability to take initiative" (1981, p. 441). Covert loyalties and a sense of indebtedness (i.e., a lack of differentiation) are the source of a range of individual, marital, and family dysfunctions. According to Williamson, the means of ameliorating these dysfunctions is through the establishment of personal authority in the family system.

Personal authority is defined as the ability of the individual to do certain things

1. to order and direct one's own thoughts and opinions;
2. to choose to express or not express these, regardless of social pressure;
3. to make and respect one's own judgements, to the point of regarding these judgements as the justification for action. This ability is a kind of "second level" experiencing of the experience of the self, of an order which cannot be captured by language. Personal authority is the ability to establish a social-emotional distance within the cognitive process itself, in order to be able to think about "thinking about". It is the ability to establish a cognitive hierarchy voluntarily and episodically, and to adopt a "meta position" vis-à-vis the internal and external world. All of this implies a renegotiation of invisible loyalties;
4. to take responsibility for the consequences of such action as noted above, indicative of a readiness to take responsibility for the totality of one's experience in life. To forfeit responsibility for personal experience is to forfeit personal authority in the same measure. To some extent these four points above characterize "individuation";
5. to initiate, or to receive or decline to receive intimacy and social connectedness voluntarily, along with the ability to establish or reestablish clear boundaries to the self, at will. It has been noted earlier that intimacy and fusion are not entirely different psychological states, since subjectively the essence of intimacy is fusion with the other. Intimacy, then, is fusion plus the reciprocal ability, more or less consistently available, to move into or out of the fused state spontaneously at will;

6. to experience and relate to all other persons, *without exception*, and therefore including the former parents, as peers in the experience of being human. This requires a termination of the intergenerational hierarchical boundary. Personal authority is the ability to acknowledge in others, and personally to identify with and then to transcend, the absurdity of the human experience. (Williamson, 1982b, p.311)

Williamson equates the achievement of differentiation from the family of origin with psychological adulthood. “[R]ebalancing intergenerational dynamics...is the source of *personal authority* in living. The adult generation can offer support without assuming emotional responsibility or burden for the welfare, the happiness, or the survival of the aging parents. And this support may be offered ‘spontaneously’ rather than ‘indebtedly’” (1981, p.442). The necessity for the establishment of a peer relationship is based on the idea that adults can only be peers in the experience of living regardless of their historical connectedness. It is only through the establishment of this psychological equality with the second generation that lifelong loyalties lose their deleterious power over the first generation. Completion of the task of termination of the intergenerational boundary is the psychological launching from the parental home. Williamson describes “leaving home” as

taking emotional responsibility for one’s life and destiny by assuming a stance of emotional independence as far as basic nurturance or protection from any outside source is concerned...’Leaving home’ means no longer being programmed by the transgenerational script...’Leaving home’ means that the adult generation no longer yearns for validation from the older generation, as far as appearance, job, marriage, children, values, and life style are concerned. Perhaps toughest of all to negotiate, ‘leaving home’ means that the adult is no longer controlled by nor required to make restitution for parental ‘goodness’ or ‘badness’, or for the more tragic aspects of parent vulnerability and failure whether past or present, real or imaginary. (Williamson, 1981, p. 445)

Real intimacy is achieved when a relationship is chosen rather than entered into out of a sense of obligation.

Another aspect of the establishment of personal authority is that parents become thought of as former parents. Adults need to give up the need to be parented. If one is to be an adult then they cannot have parents in the emotional sense. This allows one to appreciate one's parents as they are and to value them as they are, giving them up as parents in an emotional sense. Appreciating the people behind the roles of parents is the goal of the change process which allows the formation of genuine intimacy.

There are several tasks necessary to achieve personal authority in the family system which are incorporated into a new "stage in the family life cycle, occurring in the fourth decade of life, the goal of which is to terminate the hierarchical boundary between the adult client and the older parents" (1981, p. 441). It is during this fourth decade of life that an individual is thought to be prepared to complete the tasks of establishing personal authority by initiating changes in their relationships with parents designed to redistribute "power in the direction of equality, with the intention of establishing a peer relationship between the first and second generations" (p. 441). In order to be prepared to begin this stage of development individual needs to have met several conditions. First, the individual needs to have developed a social intimacy network separate from the family of origin, which is normally accomplished through marriage. Second, the individual needs to have resolved issues of vocation and use of free time. Financial independence from parents must have been achieved. Third, romantic myths about life must have been given up (e.g., the notion of romantic love), issues of gender identity must have been resolved, issues of procreation must have been resolved, and the individual needs to have lived long enough to feel a genuine compassion for the man and woman who raised them. Very few people have

resolved these issues prior to age 30. If these conditions have been met, then the individual may be prepared to begin to alter the nature of their intergenerational relationships to establish personal authority.

The establishment of personal authority involves three interpersonal dynamics; intimacy, individuation, and personal authority. Each of which is hindered by alienation, enmeshment, triangulation, and intimidation, which are antithetical to personal authority. Alienation can take two forms, intense interpersonal conflict or geographical or emotional separation, both of which impede genuine intimacy. Overt enmeshment is characterized by “constant close contact and endless sharing, with reciprocal feelings of warmth, dependency, and protection” (1982a, p. 30). Both of these dynamics, alienation and enmeshment, which can each be thought of as being on a single continuum of emotional involvement, conflict with the establishment of personal authority which is characterized by genuine intimacy with distinct boundaries between the first and second generation. Alienation is a barrier to intimacy while overt enmeshment is characterized by a lack of distinct affective boundaries between self and parents. Triangulation is another dysfunctional dynamic which occurs when intense conflict or fusion is de-escalated through involving a third party in the relationship. It is characterized by split loyalties towards parents, or between parents and spouse. These covert over-loyalties exist at the expense of autonomy. Triangulation interferes with personal authority through contact within the relationship being characterized by emotional reactivity rather than genuine intimacy with each parent and one’s spouse. Intimidation is described as a fear of closeness with another and is another barrier to intimacy and personal authority.

These dynamics; intimacy, intimidation, individuation, personal authority, and triangulation with paramours and parents; are indicative of the individual's progress in the establishment of personal authority in their family of origin. The assessment of these dynamics allows measurement of the individual's attainment of the tasks necessary for establishment of personal authority. Assessment of the dynamics involved in establishing personal authority allows for the assessment of family functioning beyond that of family relational dynamics and organizational forces.

Career Outcome Measures

The selection of dependent variables for the current study was guided by choosing career development measures which were theoretically tied to family dynamics, family organizational forces, and personal authority in the family system. Research in the area of career development has examined both outcome-oriented and process-oriented outcomes. Process-oriented (e.g., career decision-making self-efficacy) as well as outcome-oriented (e.g., vocational identity and dysfunctional career thoughts) outcome measures of career development were selected on the basis of their logical, theoretical, and demonstrated relationship to the family of origin.

Vocational Identity. John Holland's theory (Holland, 1992) identifies vocational identity as one key diagnostic indicator of person-environment fit. Vocational identity is defined as an indicator of the degree of a "clear and stable picture of one's goals, interests, and talents" (Holland, 1992, p.5). Vocational identity is measured using an instrument developed by Holland, My Vocational Situation (MVS; Holland et al., 1980). The MVS has

been used as a screening instrument in colleges and universities, as a pretreatment diagnostic test, and as a measure for evaluating the effectiveness of treatments (Spokane, 1996). However, the importance of vocational identity has been extended into areas beyond that of career development.

The age-group with which vocational identity has been most closely identified is adolescence. Several recent studies have demonstrated the importance of vocational identity during adolescent development. Katz (1997) posits that the advances in Western civilization take place at such a rapid pace that parents cannot teach their children about the world but can only teach skills, one of the most important being that of vocational identity. Other research has demonstrated that of all the important forms of identity to be achieved during adolescence, vocational identity is the first to crystallize (Skorikov & Vondracek, 1998). Robitschek and Cook (1999) described how this development takes place during adolescence, finding that the greater the level of initiative one takes toward personal growth during adolescence, the greater the level of vocational identity.

Interestingly, vocational identity is not associated with persistence in college, academic achievement, or academic performance (Blinne & Johnston, 1998; Gehlert, Timberlake, & Wagner, 1992). Thus, it appears to be a construct demonstrably separable from general intelligence, and achievement, and motivational forces. However, vocational identity is associated with internal constructs related to the formation of other aspects of identity such as self-esteem (Munson, 1992; Bloor & Brook, 1993). Thus, vocational identity appears to be a rather pure construct which measures career interests and goals. Several studies have supported the relationship between vocational identity and

theoretically-related career development outcome measures such as life satisfaction and commitment to an occupational goal (Bloor & Brook, 1993).

Vocational identity appears to develop during the years in which individuals are in college and to change developmentally as students progress through college. Poe (1991) found that college students higher in class standing tended to possess higher vocational identity. Vocational identity has been associated with difficulties commonly experienced by college students such as needing information about occupations, committing to a single college major, and staying in college longer than desired (i.e., beyond four years). Students who perceive themselves as needing less occupational information have been found to possess higher vocational identity (Poe). Students who experience difficulty committing to a single college major were found to possess lower vocational identity than those who had decided upon a college major (Lucas, Hgysbers, Buescher, & Heppner, 1988). Students who stayed in college beyond the traditional four years (i.e., prolonged student status) were found to possess lower vocational identity than student graduating in four years (Finkelstein & Gaier, 1983). Each of these findings highlight the developmental changes in vocational identity and the association of lower vocational identity with problems commonly experienced by college students. These problems have been productively addressed through career development education for quite some time.

Career development educational courses for college students have been demonstrated to positively effect vocational identity (Ware, 1985). This is logically appealing since occupational information should increase one's awareness of one's own interests and goals. Remer, O'Neill, and Cohs (1984) found that college students who had

taken a career development educational course were “more rational and less intuitive and dependent in their decision-making styles, more certain of their major and career choices, and more crystallized in their self-concept. They also collected more career information and had fewer vocational identity problems as a result of the course” (p. 532). Ware found similar results, reporting that career development education increased self-knowledge, perceived educational and occupational opportunities, and job-search skills. Based on the extant research, career development education is recommended, particularly for freshmen and sophomores, due to their less stable vocational identity. At least one sex difference has been noted regarding the need for career development education for women. Savikas (1986) found that women need a “more stable vocational identity to choose male-dominated professions and to cope with sex-role stereotyping as they implement these choices” (p. 329).

Of particular importance to the present study, several studies have investigated the impact of the family of origin on vocational identity. The definition of vocational identity as a the possession of a “clear and stable picture of one’s goals, interests, and talents” (Holland et al., 1992, p. 5) hints at the potential impact of the family of origin on this aspect of identity. Theories of career development (e.g., Havinghurst, 1964; Roe, 1957) as well as theories of identity formation (e.g., Erikson, 1968) have pointed to the family of origin as a formative influence on occupational identity. Several recent studies have investigated the impact of the family on the development of vocational identity.

The importance of family of origin on the development of vocational identity has been clearly demonstrated in recent years in the literature. Penick and Jespen (1992) found

that family functioning was a stronger predictor of vocational identity than gender, socioeconomic status, and educational achievement. Family dynamics have been found to predict vocational identity in several studies (Johnson, 1987; Lopez, 1992). Adolescents participation in and commitment to home and family roles has also been positively associated with vocational identity (Munson, 1992). Johnson, Buboltz and Nichols (1999) found that while parents marital status (i.e., married or divorced) was not associated with vocational identity, family dynamics (i.e, cohesion, expressiveness, and conflict) were related to students' attainment of vocational identity. The present study will replicate this aspect of Johnson, Buboltz, and Nichols research by investigating the relationship between vocational identity and these three family dynamics.

The relationship between Bowen's concept of differentiation and vocational identity has received some attention in the literature. Although no studies extant in the literature have explicitly examined the impact of differentiation of the development of vocational identity, some attention has been paid to individual elements of differentiation. For example, Jowdy (1995) investigated the relationship between the process of separation-individuation and vocational identity. The results of the study indicated that healthy separation from parents is related to vocational identity. Puffer (1999) found one variable associated with differentiation, encouraging autonomy and independence by parents, to be associated with a clear and stable vocational identity. The current study will take this line of inquiry a step further by explicitly examining the role of family dynamics and differentiation on the development of vocational identity in college students.

Dysfunctional Career Thoughts. The importance of the role of dysfunctional career thoughts is highlighted in the cognitive information processing approach to career counseling (CIP; Peterson, Sampson, & Reardon, 1991; Peterson, Sampson, Reardon, & Lenz, 1996) and Beck's cognitive therapy (Beck, 1976; Beck, Emery, & Greenberg, 1985; Beck, Rush, Shaw, & Emery, 1979). According to these theories dysfunctional career thoughts interfere with rational thinking and career-related activities such as seeking out information about careers, making a decision to choose a given career, and making a commitment to a career choice. The instrument used to measure dysfunctional career thoughts, the Career Thoughts Inventory (CTI; Peterson, Sampson, & Reardon; Peterson, Sampson, Reardon, & Lenz), was published only recently (1998) and the literature has only begun to investigate the importance of the constructs. In a recent search of the literature, only nine published studies investigating dysfunctional career thoughts were found. However, the extant research has consistently supported a positive relationship between the quality of career thinking and career decisiveness.

The primary hypothesis of CIP theory is that dysfunctional career thinking interferes with and impedes the ability to make a career choice. This hypothesis has been supported in the literature (Saunders, 1998; Saunders, Peterson, Sampson, & Reardon, 2000; Osborn, 1999). In fact, one study found that 71% of the variance in career indecision could be accounted for by dysfunctional career thoughts after partialing out the variance accounted for by secondary variables (Saunders).

Several studies have been conducted to examine the relationship between dysfunctional career thoughts and variables which are theorized to interfere with rational

thought. For example, one study has found that perfectionism is associated with dysfunctional career thinking (Osborn, 1999). Interestingly, variables comprised primarily of affect do not appear to be associated with dysfunctional career thoughts. Two studies have failed to demonstrate a relationship between dysfunctional career thoughts and depression and state/trait anxiety (Saunders, 1998; Saunders, Peterson, Sampson, & Reardon, 2000). These studies appear to support dysfunctional career thinking as a relatively pure measure associated with cognitive-mediated variables but not affective variables.

Dysfunctional career thoughts have begun to be investigated in populations for whom dysfunctional career thinking would be expected. These populations include criminals, substance abusers, learning disabled students, and college students who are undecided in their college major (Dipeolu, 1998; Kilk, 1998; Railey, 1997; Slatten, 1999). Among criminals, differences were found among probationers, first-time offenders, and repeat offenders in their degree of dysfunctional career thoughts (Railey). Higher degrees of criminality were associated with greater dysfunctional career thoughts. Substance abusing adults were found to have dysfunctional career thinking most similar to high school students (Slatten). Learning disabled college students were found to score higher on one subscale of the CTI, External Conflict, indicating that learning disabled students are more likely than non-learning disabled students to have difficulty balancing their own perceptions and those of significant others in the career decision-making process (Dipeolu). Student who were undecided in their college major were found to possess greater dysfunctional career thoughts than decisive students (Kilk). Dysfunctional career thoughts

were found to influence a student's ability to decide on a major field of study. Each of these groups (i.e., criminals, substance abusers, learning disabled students, and undecided college majors) demonstrated dysfunctional career thoughts. These findings support the notion that dysfunctional career thoughts impede the ability to choose a career and commit to a career choice.

Dysfunctional career thoughts were chosen as a career outcomes measure for the present study due to their recent addition to their career development literature and because they are a logical outcome of lack of differentiation from the family of origin. Perhaps due to their recent introduction to the literature, no studies to date have investigated contextual factors' (e.g., family of origin) influence on cognitive information processing specific to career development. According to Bowen family system's theory, the individual who is poorly differentiated from the family of origin is heavily influenced by subjectivity and emotionality. This prevents the individual from thinking and acting independently, particularly during times of tension or anxiety. Differentiation allows individuals to think in a goal-directed manner. Bowenian theory predicts that the more poorly differentiated one is from the family of origin, the greater the level of irrational thinking and decision-making, therefore, the greater the dysfunctional career thoughts. Williamson's concept of personal authority in the family system also describes rational cognitive processes as part of the development of personal authority. The well-differentiated person is described by Williamson as being able to "order and direct one's own thoughts" and "to make and respect one's own judgements, to the point of regarding these as the justification for actions" (1982b, p.311). Personal authority in the family system would predict that the

greater the attainment of the tasks associated with differentiating from the family of origin, the fewer dysfunctional career thoughts.

Career Decision-Making Self-Efficacy. The first researchers to apply Bandura's self-efficacy theory (Bandura, 1986) to the domain of career decision-making were Taylor and Betz (1983). They created the Career Decision-Making Self-Efficacy Scale (CDMSE) to operationalize and measure career decision-making self-efficacy, which is defined as the belief that one can successfully complete the specific tasks and behaviors necessary for effective career decision-making. Research on self-efficacy indicates that career expectations, particularly those of children and students, significantly influence career outcomes and attainment (Betz & Voyten, 1997; Taylor & Betz, 1983; Taylor & Popma, 1990a). Self-efficacy expectations and goals give rise to the resulting behavior which impacts eventual career development. Students' career expectations, the interplay of their hopes and goals, give meaning and direction to their behavior which influences career decisiveness as well as other career outcomes (Thompson, 1999).

According to Bandura's self-efficacy theory internal barriers prevent individuals from engaging in a particular domain of behavior because the individuals do not believe they will be successful. Applied to career decision-making, these internal barriers impede effective career decision-making (McAuliffe, 1992). Several studies support the relationship between career decision-making self-efficacy and career indecisiveness (Bergeron & Romano, 1994; Betz & Luzzo, 1996; Betz & Voyten, 1997; Hird 1995; Mathieu, Sowa, & Niles, 1993; Taylor & Betz, 1983; Taylor & Popma, 1990a; Wulff & Steitz, 1999). Career decision-making self-efficacy has been demonstrated to be a

moderately strong predictor both of career indecisiveness (Betz & Vuyten; Mathieu, Sowa, & Niles) and of college major indecision (Bergeron & Romano, 1994). Higher career decision-making self-efficacy has been found to be associated with having actually made a career decision. In fact, other cognitive constructs theorized to be related to career indecision, career salience and locus of control, have been found to not predict vocational indecision as well as career decision-making self-efficacy (Taylor & Popma). Career decision-making self-efficacy has been found to be related to one specific aspect of career indecision described as a lack of structure and confidence with respect to making career decisions (Taylor & Betz).

Career decision-making self-efficacy has been investigated for its relationship to other outcomes of career development such as career exploration, persistence and attrition of college students, career maturity, and career decision-making attitudes. The research consistently demonstrates a moderate relationship between career decision-making self-efficacy and career exploration. Blustein (1989) found that for college students career exploratory behavior was associated with career decision-making self-efficacy while Carns, Carns, Wooten, and Jones (1995) found career decision-making self-efficacy to be positively associated with participation in extracurricular activities. The relationship of persistence/attrition and career decision-making self-efficacy among non-traditional college students was investigated by Sandler (1999). This study found that 34% of the variance in student persistence was explained by career-decision-making self-efficacy. The relationship between college student athletes' career maturity and career decision-making self-efficacy has also been investigated (Kornspan, 1998). It was found that career decision-making self-

efficacy significantly contributed to the prediction of career maturity among these students. The relationship of career decision-making attitudes and career decision-making self-efficacy of college student athletes has been investigated in two studies by Luzzo (1993, 1995). Both studies reveal a moderate, positive relationship between career decision-making self-efficacy and career decision-making attitudes. Luzzo (1995) concludes that “self-efficacy theory is superior to locus of control modeling in predicting career decision making attitudes” (p. 61). These studies demonstrate the importance of career decision-making self-efficacy’s relationship to a range of career development outcomes.

Of particular importance to the present study is the relationship between the family of origin and career decision-making self-efficacy. According to Bandura’s (1986) theory self-efficacy beliefs stem from several sources which include verbal persuasion and external environmental factors. The family of origin could theoretically impact career decision-making self-efficacy through these channels. To date only two studies have investigated the impact of the family of origin on career decision-making self-efficacy (Blustein, Walbridge, Friedlander, & Palladino, 1991; Whiston, 1996). Whiston found that “there are family dimensions related to career indecision and career decision-making self-efficacy but not always in the hypothesized ways” (p. 137). The family structural forces of organization and control were found to be positively related to career decision-making self-efficacy. However, another study conducted from an attachment theory perspective failed to find the hypothesized relationship between career decision-making self-efficacy and separation from parents (Blustein et. al, 1991).

The present study will seek to expand upon this previous research into the relationship between the family of origin and career decision-making self-efficacy. Specifically, Whiston's (1996) study will be expanded upon by including not only family organizational forces impact on career decision-making-self-efficacy but also that of family dynamics (i.e., cohesion, conflict, and expressiveness). Blustein et. al's (1991) research will be examined from a different paradigm completely. Rather than examining the singular construct of separation from parents, the present study will examine differentiation from the family of origin which includes not only separation from parents but also emotional independence, emotional closeness, and intimacy with parents as measured by Williamson's (1981, 1982a, 1982b) developmental tasks in the establishment of personal authority.

Statement of the Problem

Due to methodological weaknesses of previous research which have assessed the role of the family of origin in career development, available data remain equivocal. The present study seeks to improve upon the shortcomings of previous research by addressing three criticisms in in the area of measurement. First, criticism has focused on the failure to assess the entire family as a whole, interacting unit. Studies from an attachment theory perspective, for example, examine the relationship between the adult child and each parent but fail to measure the interaction between the parents or among the entire family unit. Second, prior research investigating the role of family dynamics on career development has been noted for its failure to use multidimensional measures of family functioning (Eigen, Hartman, & Hartman, 1987; Kinnier, Brigman, & Noble, 1990). Third, Eigen, Hartman,

and Hartman cite the need for the use of measures of family relational dynamics and organizational patterns that are consistent with the theory from which they are derived. This is particularly important in an area of research characterized by diffuse means of measuring the same theoretical constructs.

The present study expanded and improved upon previous research by examining the impact of several dimensions of family functioning simultaneously. These dimensions include family dynamics, family organizational forces, and the establishment of personal authority. These variables are used to characterize and describe the interaction of the entire family as a whole. The instruments used are derived directly from Bowen family systems theory and Williamson's theory of personal authority. The present study sought to understand the impact of these forces on career decision-making self-efficacy and vocational identity. Further, the present study sought to understand the impact of these same family dynamics and developmental tasks on the quality of career-related thoughts. The present study sought to remedy the absence of data investigating the impact of these forces on career thoughts.

Justification for the Study

The current study has responded to calls in the literature for further investigation into the impact of family dynamics on the adjustment and career development of adolescents and young adults (e.g., Blustein et al., 1991). Studies from the attachment literature discussed previously largely failed to find a link between separation from parents and adjustment in college students. This could lead to the conclusion that separation from parents and the establishment of independence may not occur during early adulthood or that

separation may not be important. However, before this conclusion can be accepted, further research from a family systems perspective is needed to investigate this question. It may be the case, as suggested by Kenny (1990), that some aspects of separation and independence, such as conflictual independence, facilitate adjustment while other aspects of separation do not impact adjustment. Further, Lopez and Andrews (1987) cite the need for studies examining the utility of a family systems perspective specifically on career development. They note the need to understand relational dynamics and organizational forces in the families of career indecisive students. Increasing our comprehension of the impact of these factors in career indecisiveness could advance both assessment and intervention in career counseling.

The present study addressed these needs by, first, adopting a Bowenian family systems theory perspective as well as Williamson's (1981, 1982a, 1982b) elaboration of Bowenian theory with family life cycle developmental tasks. These theories guided the selection of salient variables for the measurement of family processes. Family systems theory is predicated upon the belief that phenomena within the entire family as a unit comprise some of the most important elements of family functioning. Therefore, the present study measured both family relational dynamics as well as family organizational forces. Family relational dynamics which were measured included expressiveness, cohesion, and conflict. Family organizational forces which were measured included control and organization.

According to Bowenian theory (Bowen, 1978) the most important development task for adolescents is that of differentiation of self from parents. Differentiation is defined as

the ability to set and distinguish cognitive and affective boundaries between the self and others and maintain these boundaries, particularly during times of acute stress. Difficulty with differentiation indicates that the individual is experiencing difficulty in distinguishing their own thoughts, feelings, desires, and goals from those of others. This establishment of independence, while maintaining intimacy with parents, is the essence of personal authority (Williamson, 1982b). Young adults who experience difficulty with these tasks are predicted to be at greater risk for experiencing problems with adjustment and other tasks of young adulthood, primary among these tasks being career development. Finally, the assessment of personal authority in addition to relational and organizational forces allows for researchers to overcome limitations of past research identified by Schulenberg, Vondracek, and Crouter (1984). They reported that studies investigating the impact of family influences on vocational outcomes has been limited by a focus on vocational outcomes rather than developmental processes and by a failure to view the family as a functioning whole.

Problems with differentiation and the establishment of personal authority, the lack of distinction between the thoughts and goals of self and others, are thought to be particularly detrimental to the development of vocational identity. Vocational identity has been examined from the perspective of attachment, separation, conflict, and family systems theory. This wealth of research on vocational identity is consistent with the theorized importance of this construct in the career development of young adults. Research on attachment has found that both attachment and separation are positively related to vocational identity (Josselson, 1987). Johnson et al. (1998) found a positive relationship between a supportive parenting style (i.e., high cohesiveness, high expressiveness, and low

conflict) and vocational identity. A negative relationship between family conflict and vocational identity was also found by Lopez et al. (1988). The present study further examined this relationship by including not only family relational dynamics but also family organizational forces in the investigation of the role of family on vocational identity.

This same confusion of thoughts and goals associated with lack of differentiation is also predicted to be positively related to dysfunctional career-related thoughts. These predicted relationships have been hinted at in the literature but not directly investigated. Penick and Jespen (1992) found that enmeshment and disengagement lead to problems with separation from parents, vocational identity, and career development. The present study directly addressed the relationship between these family relational and organizational forces and personal authority and the quality of career thoughts.

Lastly, lack of distinctiveness of goals, emotion, and thoughts associated with a lack of personal authority and differentiation was predicted to be related to career self-efficacy beliefs. As mentioned previously, the attachment literature has been inconclusive regarding the role of family of origin on career self-efficacy. Blustein et al. (1991) failed to find a relationship between separation and career self-efficacy while O'Brien (1996) found a beneficial role for attachment in career self-efficacy. Mallinckrodt (1992) found that a supportive parenting style is positively related to career self-efficacy. The current study has taken a more comprehensive view of career decision-making self-efficacy by partially replicating and elaborating these studies. The current study examined not only the role of family relationship variables on career self-efficacy but also the role of family organization and personal authority on career-decision-making self-efficacy.

Hypotheses

Family dynamics which were included are verbal expressiveness, emotional cohesion, and conflict. Family structure elements which were included are level of organization and control within the family. These aspects of family functioning were expected to be related to adolescent and young adults career decision-making self-efficacy, vocational identity, and dysfunctional career thoughts. This study sought to address the following questions. How do family dynamics, family structure, and differentiation of self affect the attainment of vocational identity in young adults? How do family dynamics, family structure, and differentiation affect the career decision-making self-efficacy of young adults? How do family dynamics, family structure, and differentiation affect the functional utility of the career thoughts of young adults?

Hypothesis 1

For college-aged adults, family relationship dynamics will be related to the attainment of vocational identity. Specifically, cohesion and expressiveness will be positively related and conflict will be negatively related to the attainment of vocational identity.

Hypothesis 2

For college-aged adults, family organizational forces will be related to the attainment of vocational identity. Specifically, high levels of organization and high levels of control will be positively related to the attainment of vocational identity.

Hypothesis 3

For college-aged adults, personal authority in the family system will be positively related to the attainment of vocational identity. Although no predictions are made concerning the relationship between specific developmental tasks in the establishment of personal authority and vocational identity, the set or a subset of personal authority tasks (i.e., intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation) are predicted to be positively related to the attainment of vocational identity.

Hypothesis 4

For college-aged adults, family relationship dynamics will be related to career decision-making self-efficacy. Specifically, cohesion and expressiveness will be positively related and conflict will be negatively related to career decision-making self-efficacy.

Hypothesis 5

For college-aged adults, family organizational forces will be related to career decision-making self-efficacy. Specifically, high levels of organization and high levels of control will be positively related to career decision-making self-efficacy.

Hypothesis 6

For college-aged adults, personal authority in the family system will be positively related to career decision-making self-efficacy. Although no predictions are made concerning the relationship between specific developmental tasks in the establishment of personal authority and career decision-making self-efficacy, the set or a subset of personal

authority tasks (i.e., intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation) are predicted to be positively related to the attainment of career decision-making self-efficacy.

Hypothesis 7

Although the literature does not support specific predictions concerning the relationship between personal authority in the family system and dysfunctional career thoughts, Williamson's (1981, 1982a, 1982b) theory does lead to the hypothesis that personal authority will be negatively related to dysfunctional career thoughts. Specifically, the set or a subset of the personal authority in the family system developmental tasks (i.e., intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation) will be negatively related to the set or a subset of dysfunctional career thoughts (i.e., decision-making confusion, commitment anxiety, and external conflict).

Hypothesis 8

Although the impact of the family dynamics on the content of career-related cognitions has not been investigated, it is hypothesized that low cohesion and expressiveness and high conflict will be related to dysfunctional career thoughts, decision-making confusion, commitment anxiety, and external conflict.

Summary

Intergenerational family systems theory provides a perspective for viewing the development of families. Family dynamics and organizational forces have been demonstrated to play a role in the career development of young adults. Bowen (1978) family systems theory predicts that differentiation leads to the ability to distinguish between the thoughts and goals of self and others, even during times of intense anxiety. By measuring the dynamic forces that are derived from intergenerational family systems theory and evaluating career outcomes that are logically tied to these forces, the present study has met needs for research mentioned in previous studies. The current study examined the relationship of these family forces with the attainment of vocational identity as well as with two career outcomes that are more cognitive in nature; career self-efficacy and career thoughts. This allowed an examination of the role of differentiation in the separation of identity, thoughts, and self-efficacy beliefs. Vocational identity was predicted to be positively related to a supportive family environment and higher levels of differentiation. Career self-efficacy was predicted to be positively related to a supportive family environment and to higher levels of differentiation. Dysfunctional career thoughts were predicted to be associated with higher levels of family conflict and lower levels of differentiation. The results of this study have implications for theories of young adult development as well as for career counseling. Specifically, this research has direct applications for psychologists who work with college-aged populations.

CHAPTER 2

METHODS

One purpose of the present study was to overcome weakness of previous research in this area. Recommendations for future research outlined by previous researchers (Blustein et al., 1991; Eigen et al., 1987; Kinnier et al., 1990; Lopez & Andrews, 1987, Schulenberg et at., 1984) have been incorporated into this study. Specifically, the present study derived its measures of family functioning from intergenerational family systems theory which views differentiation of self as a crucial aspect of young adult development. Accordingly, career outcome variables were selected on the basis of those which have either been demonstrated to be associated with family dynamics or those which theoretically should be associated with level of differentiation. This study assessed the impact of family of origin on career self-efficacy, career thoughts, and vocational identity.

Participants

Undergraduate students at a Southern university were sampled. An effort was made to obtain participation from students varying in class standing (i.e., freshmen through seniors) and in college major by eliciting participation of students from freshmen, sophomore, junior, and senior-level classes from seven undergraduate courses in the Department of Psychology and Behavioral Sciences, two of which service the entire

university. Participation was completely voluntary. Prior to collecting data, the study was approved by the university's Human Use Committee (see Appendix A) . Participants were treated in accordance with the " Ethical Principles of Psychologists and Code of Conduct" (American Psychological Association, 1992). Participants over the age of 30 were excluded from statistical analyses because Williamson (1981) predicts that these individuals will have different developmental concerns in terms of personal authority than those under 30. Thus, of the 243 students completing surveys, 17 were excluded from analyses, leaving 226 participants included in statistical analyses.

Instruments

Instruments in the present study included; (a) demographic items, (b) the Career Decision-Making Self-Efficacy Scale, short form (CDMSE-SF; Betz, Klein, & Taylor, 1996), (c) the Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon, & Saunders, 1994), (d) the Family Environment Scale (FES; Moos & Moos, 1994), (e) My Vocational Situation (MVS; Holland, Daiger, & Power, 1980), and (f) The Personal Authority in the Family System, Questionnaire, college student version (PAFS-QVC; Bray & Harvey, 1992).

Demographics Questions

The demographics questions (see Appendix B) asked participants to provide information regarding their sex, age, ethnicity, class standing, and other relevant family variables.

Career Decision-Making Self-Efficacy
Scale short form (CDMSE-SF)

The short form of the Career Decision-Making Self-Efficacy scale (CDMSE-SF; Betz et al., 1996) was developed as an abbreviated form of the Career Decision-Making Self-Efficacy Scale (CDMSE; Taylor & Betz, 1983) due to the need for a shorter instrument for research purposes, career assessment and intervention, and program evaluation. The CDMSE-SF was created in order to increase the applied utility of the CDMSE while maintaining its sound psychometric properties.

The Career Decision-Making Self-Efficacy scale (Taylor & Betz, 1983) measures an individual's degree of belief that he/she can successfully complete tasks necessary to make career decisions. Because the most important part of developing a measure of self-efficacy is specifying the behavioral domain of interest, we chose as the basis for scale construction the five Career Choice Competencies postulated by Crites' (1978) model of career maturity and assessed in the Career Maturity Inventory (Crites, 1978). Thus, the five subscales included behaviors pertinent to (1) accurate self-appraisal, (2) gathering occupational information, (3) goal selection, (4) making plans for the future, and (5) problem-solving. Ten items were written to reflect each competency area. (Betz & Taylor, 1994, p. 8)

Even though these five scales have not been validated in subsequent factor analyses of the CDMSE, they are retained in the CDMSE-SF because of their theoretical utility and their heuristic value in identifying areas of concern in career counseling. For the 25-item version of the CDMSE the following criteria were used in selecting items from the original:

(a) substantive generality...(b) item-own scale correlation equal to or above .50, (c) loading on appropriate factor (only) in Taylor and Popma (1990b) factor analysis, and (d) recommendation for retention on the basis of Gati et al.'s split-scale analysis. The number of criteria met by each item was determined, and items meeting the fewest criteria were eliminated. (Betz et al., 1996, p. 49)

This resulted in five 5-item scales for a total of 25 items. The CDMSE-SF is completed by responding to each item on a 1 to 5 scale indicating the degree of confidence

with which each task could be performed (viz., 1 = no confidence at all, 2 = very little confidence, 3 = moderate confidence, 4 = much confidence, 5 = complete confidence). The subscale scores are calculated by summing the items on that subscale. The subscale scores can range from 5 to 25. The total score is the sum of all five subscales and can range from 25 to 125.

The reliability of the CDMSE-SF was reported in Betz et al. (1996). The reported internal consistency of the total score is .94, which is consistent with the internal consistency of the long version of the instrument (.97). The internal consistency of the subscales are acceptable as well, ranging from .73 (Self-Appraisal) to .83 (Goal Selection). These subscale reliability estimates are comparable to the internal consistency of the subscales of the 50-item scale which range from .86 (Problem-Solving) to .89 (Occupational Information). These reliabilities are particularly impressive when one considers that they reflect subscales which contain only five items. Stability (i.e., test-retest reliability) of the 25-item version has not been investigated.

The validity of the instrument has been addressed through content and concurrent validity. Content validity was built into the instrument by linking items to Crites' (1978) theory of career maturity as well as to Bandura's theory of self-efficacy. Items directly ask about the confidence with which respondents believe they can engage in particular tasks, linking the items to self-efficacy theory, while the tasks themselves reflect the behavior identified by Crites as being crucial for career maturity. The construct validity of the factor structure of the CDMSE-SF is not supported by factor analysis. Previous factor analytic studies of the long form (Robbins, 1985; Taylor & Popma, 1990b) have failed to reveal the

hypothesized five constructs as well. Based on these findings, it has been suggested that the CDMSE may be “best characterized as a generalized career self-efficacy measure covering a multifaceted domain of career decision-making behaviors” (Taylor & Popma). Concurrent validity was addressed by administering the CDMSE-SF, the Vocational Identity scale from My Vocational Situation (MVS; Holland et al., 1980), and The Career Decision Scale (CDS; Osipow, 1987) to a group of college students ($N=184$) and examining concurrent validity coefficients. All of the correlations between the CDMSE-SF, CDS Certainty and Indecision scales, and the MVS Vocational Identity scale are in the predicted direction and most are significant and of moderate size. Correlations between the CDMSE-SF subscales and Vocational Identity scale range from .40 to .66 for females and from .28 to .56 for males; between the CDMSE-SF subscales and the CDM Indecision scale they range from -.45 to -.66 for females and from -.19 to -.60 for males; and between the CDMSE-SF and the CDS Certainty scale they range from -.46 to -.76 for females and from -.03 to -.55 for males. These validity coefficients are as high or higher for the short form than for the long form. Based on these findings, it was concluded (Betz et al., 1996) that the short form of the CDMSE has satisfactory psychometric properties as good as, if not exceeding, those of the long form with half the length.

Career Thoughts Inventory (CTI)

The Career Thoughts Inventory (CTI; Sampson et al., 1994) is a rationally and empirically derived instrument which utilizes the cognitive information processing approach to career counseling (CIP; Peterson, Sampson, & Reardon, 1991; Peterson,

Sampson, Reardon, & Lenz, 1996) and Beck's cognitive therapy (Beck, 1976; Beck, Emery, & Greenberg, 1985; Beck, Rush, Shaw, & Emery, 1979) in guiding instrument development. The CTI provides a measure of dysfunctional career-related thinking. It is completed by responding to 48 items on a four-point scale (viz., 0 = strongly disagree, 1 = disagree, 2 = agree, or 3 = strongly agree). The instrument can be completed in 7 to 15 minutes. It has been normed on adult, college student, and high school student samples. The CTI provides an overall score, which is a global indicator of dysfunctional career thinking, along with three subscale scores; (1) Decision Making Confusion (DMC), an indicator of "an inability to initiate or sustain the decision making process as a result of disabling emotions and/or a lack of understanding about the decision making process itself" (Sampson et al., 1994, p. 2), (2) Commitment Anxiety (CA), a measure of "an inability to make a commitment to a specific career choice, accompanied by generalized anxiety about the outcome of the decision making process, with the anxiety perpetuating the indecision" (p.2), and (3) External Conflict (EC), a measure of "an inability to balance the importance of one's own self-perceptions with the importance of input from significant others, resulting in a reluctance to assume responsibility for decision making" (p. 2). For the overall score as well as all three subscale scores, higher scores indicate greater levels of dysfunctional career related thoughts.

The reliability of the instrument is addressed in Sampson et al. (1994). Internal consistency coefficients (i.e., Cronbach's alpha) for the CTI Total score range from .93 to .97 across normative groups, DMC coefficients range from .90 to .94, CA coefficients range from .79 to .91, and EC coefficients range from .74 to .81. Four-week stability

estimates for the CTI college student sample were calculated using test-retest reliability coefficients. Test-retest reliability for the CTI Total score ($r = .86$) and DMC ($r = .82$) was high. Stability estimates for CA ($r = .79$) and EC ($r = .74$) were more moderate, although still adequate. The consistently lower reliability estimates observed for the CA and EC subscales are consistent with scales with smaller numbers of items ($n_{CA} = 10$, $n_{EC} = 5$).

The validity of the CTI has been addressed through content, construct, convergent, and criterion-related validity. Content validity is "built into the development strategy of the CTI items and scales. Individual items and construct scales are directly linked to CIP theory through content dimensions" (Sampson et al., 1994, p. 51). Construct validity is based on a series of principal components analyses with orthogonal rotation which identified three factors; Decision Making Confusion, Commitment Anxiety, and External Conflict. These factors were replicated in subsequent principal components analyses using four normative groups. Correlations between CTI Total score and the three subscales reveal that there is a general confusion construct that reflects pervasive career thinking and decision making confusion. There are also constructs reflecting anxiety concerning commitment to a single career and to conflict with significant others. All three constructs can be seen as reflecting the presence of confused thinking related to career problem solving and decision making. The convergent validity of the CTI has been investigated with a sample of college students ($N=152$). The CTI Total score is negatively correlated with vocational identity ($r = -.69$), certainty ($r = -.61$), knowledge about occupations and training ($r = -.55$), and is positively correlated with indecision ($r = .53$), neuroticism ($r = .51$), and vulnerability ($r = .55$). Criterion-related validity was addressed by investigating the extent to which the CTI

accurately discriminated between college students seeking career counseling services and college students not seeking those services. Results of a MANOVA demonstrated that the CTI scores significantly differed between college students seeking career counseling and college students not seeking those services, Hotelling's $T^2 = .77$, $F(48) = 1.83$, $p < .01$. Scores were significantly different on all four scales (i.e., CTI Total, DMC, CA, and EC) between the groups. Individual item analyses indicated that the groups differed on 26 of the 48 items on the CTI. On all 48 of the item analyses the F ratio was positive, indicating that college students seeking career counseling consistently scored higher (i.e., endorsed more dysfunctional career-related thoughts) than those not seeking counseling. Taken together, this criterion-related validity data indicates that the CTI adequately discriminates between client and non-client populations.

Family Environment Scale (FES)

The Family Environment Scale (FES; Moos & Moos, 1994) is composed of 10 subscales that measure perceptions of the social environment within the family. The subscales measure three sets of underlying dimensions; relationship dimensions, personal growth (or goal oriented) dimensions, and system maintenance dimensions. "The relationship and system maintenance dimensions primarily reflect internal family functioning, whereas the personal growth dimensions primarily reflect the linkages between the family and the larger social context" (Moos & Moos, p. 1). In the current study only the relationship and system maintenance dimensions were utilized.

The relationship dimension contains the three subscales; Cohesion ("degree of commitment, help and support family members provide for one another", p. 1), Expressiveness ("the extent to which family members are encouraged to express their feelings directly", p. 1), and Conflict ("the amount of openly expressed anger and conflict among family members", p. 1). The system maintenance dimension contains two subscales; Organization ("the degree of importance of clear organization and structure in planning family activities and responsibilities", p. 1) and Control ("how much set rules and procedures are used to run family life", p. 1). The FES contains 9 items per subscale for a total of 90 items. Each item is responded to as either "true" or "false". The FES yields 12 scores; 10 subscale scores, the Family Relationships Index (a 27-item index of the quality of family relationships derived by summing the Cohesion, Expressiveness and the reverse-scored Conflict subscales), and the Family Social Integration Index (a 27-item index of the degree of social integration of the family into the community derived by summing the Intellectual-Cultural Orientation, Active-Recreational Orientation, and Moral-Religious Emphasis subscales). Each subscale score is computed by summing the "true" responses for its items. The Total score is the sum of the 10 subscale scores. Of these scores only the 3 subscale scores of the relationship dimension and the 2 subscale scores of the system maintenance dimension will be used in the present study. The FES has three alternate forms, the Real Form (Form R), Ideal Form (Form I), and Expectations Form (Form E). The Real Form asks for respondents to describe their families as they actually perceive them and is the only one of the three forms which will be used in the present study.

The test demonstrates satisfactory reliability. Internal consistency (Cronbach's alpha) for the 10 subscales is acceptable, ranging from .61 (Independence) to .78 (Cohesion, Intellectual-Cultural Orientation, and Moral-Religious Emphasis; $N = 1,067$). Subscale intercorrelations range from .32 to .44 ($N = 1,067$), accounting for less than ten percent of the subscale variance on average. These correlations indicate that "the subscales measure distinct though somewhat related aspects of family environments" (p. 21). Profile stability over two and four months is acceptable, with test-retest reliabilities varying from .68 to .86 over two months ($N = 47$) and from .66 to .91 for four months ($N = 35$). Subscale stabilities have also been examined for periods of 1 year ($N = 529$), 3 to 4 years ($N = 219$), 6 years ($N = 167$), and 9 to 10 ($N = 173$) years from a diverse sample which included substance abuse patients, depressed patients, and non-patients. At one year, stability was relatively high, ranging from .53 (Independence) to .84 (Moral-Religious Emphasis). These test-retest reliability estimates indicate that some aspects of family functioning can be quite consistent over relatively long periods while some changes also occur within families. Stability decreased over longer periods, especially at 9 to 10 years. Moral-Religious Emphasis ($r = .77$) and Organization ($r = .65$) were the most stable, probably reflecting the consistency of family members' religious values and means of organizing their families. These findings indicate both good subscale reliability and reasonable restructuring of family environments over long periods of time.

Through extensive studies of the FES gender differences, sociodemographic variables, and personality traits have been shown to have little bearing on perceptions of family functioning. This has been taken as evidence that the subscales of the FES reflect

a unique domain that is distinct from demographic attributes and personality characteristics. These studies support the notion that individuals discriminate between their mood, personality, and other aspects of their personal lives and their family and that the actual characteristics of their families are the major determinants of their perception their perceptions of family functioning (Moos & Moos, 1994, p. 26).

The validity of the test has been addressed through content, construct, and discriminant validity. Content and face validity were built into the FES “ by formulating definitions of specific constructs, such as cohesion and organization; preparing items to fit the construct definitions; and selecting items that were conceptually related to a dimension” (Moos & Moos, 1994, p. 26). Additionally, item selection was based on empirical criteria including item intercorrelations, item-subscale correlations, and internal consistency. Also, for the sake of conceptual simplicity and construct clarity, items contribute to only a single subscale. In addressing construct validity, the test authors have examined the relationship of individual subscales to conceptually related constructs. For example, Cohesiveness has been found to be related to the amount of support received from family (Sandler & Barrera, 1984, Sarason, Shearin, Pierce, & Sarason, 1987), more parental care, and less parental overprotection as measured by the Parental Bonding Instrument (Sarason et al.). Low Conflict scores have been associated with individuals who handle conflict constructively (Brown, Yelsma, & Keller, 1981). High Cohesion and Expressiveness and lack of Conflict are related to social, emotional, and sexual intimacy (Schaefer & Olson, 1980). Families that have more methodical ways of accomplishing tasks (e.g., set bedtimes for children) tend to score higher on Organization, Control, and

Cohesion and score lower on Conflict (Fiese & Kline, 1993). Discriminant validity has been extensively investigated. In short, the FES has been shown to discriminate among families, predict and measure treatment outcomes, measure the relationship between family climate and adequacy of coping with life transitions and crises, and measure the connections between the family environment and adaptation among children and adults (Moos & Moos, p 26).

My Vocational Situation (MVS)

My Vocational Situation (MVS; Holland et al., 1980) was developed as an instrument for use with career counseling clients of high school through adult ages to categorize presenting problems in career counseling as problems of vocational identity, problems of lack of occupational information, or problems of clients perceiving external barriers to their career development. The instrument contains three subscales; Vocational Identity, which is a measure of “the possession of a clear and stable picture of one's goals, interests, personality, and talents” (Holland et al., p.1), Occupational Information, which “provides a client the opportunity to indicate a need for vocational information” (p.1), and Barriers, which “invites the client to indicate perceived external obstacles to a chosen occupational goal” (p.1). However, low reliability of the Occupational Information (KR 20s range from .39 to .79) and Barriers (KR 20s range from .23 to .65) subscales indicates that they “should be regarded as useful checklists or borderline scales. They do not generally function as homogeneous scales” (p. 7), however, they are retained on the MVS because of their clinical utility. Therefore, in the current study only the Vocational Identity

subscale was included. The eighteen items of the Vocational Identity subscale are responded to as either "true" or "false". The subscale score is the number of false responses. Higher scores are more favorable. Means and standard deviations are reported by age and gender for the normative groups, however, "the development of local norms is recommended" (p.6). The instrument is completed by most individuals in 10 minutes or less.

The psychometric properties of the Vocational Identity subscale are addressed in the MVS manual. Its internal consistency is quite high across all samples (KR 20 = .86 for male and female high school students, KR 20 = .89 for male college students and adult workers, and KR 20 = .88 for female college students and adult workers). The construct validity was addressed in a study which tested several hypotheses regarding the relationship of vocational identity to age, educational level, vocational aspirations, and external ratings. The Vocational Identity subscale is positively correlated with age ($r = .28$) and negatively correlated with number ($r = -.16$) and variety ($r = -.23$) of occupational aspirations. This indicates that people with "a clear sense of identity and with a small number of informational needs have a small number and variety of occupational aspirations" (p. 4). High Vocational Identity scores are also associated with good organization, lack of loose ends, self-confidence, lack of tension and discomfort, and competence in handling life well. In a separate study of high school students using a short form of the Vocational Identity subscale the correlations between Vocational Identity and the amount of help desired in diverse areas of concern was $-.23$ for females ($n = 933$) and $-.29$ for males ($n = 1410$). Vocational identity is negatively related to the expressed desire for help. It has also been

found to increase with age, training, and degree of specialization (means increased from 9.57 for high school student to 13.93 for graduate students and faculty). Taken together, the construct validity data indicates that vocational identity increases as predicted, with age and career experience, and relates positively to several indicators of career maturity.

**Personal Authority in the Family System
Questionnaire, college student version (PAFS-Q)**

The Personal Authority in the Family System Questionnaire, (PAFS-Q; Bray, Williamson, & Malone, 1984a, b) is a self-report instrument which measures respondents' perceptions of several aspects of their family relationships; personal authority (Williamson, 1981, 1982a, 1982b), triangulation, individuation, and intimacy. These relationship dynamics are central to Bowen's (1978) family systems theory. The form of the PAFS-Q which was used in the present study has been adapted for use specifically with college students (PAFS-QVC; Bray & Harvey, 1992). The PAFS-QVC contains seven orthogonal subscales: (a) intergenerational intimacy -- the degree of intimacy with parents (i.e., voluntary closeness with distinct boundaries of self), (b) intergenerational individuation -- the degree of individuation in relation to the parents (i.e., the ability to function in an autonomous and self-directed manner without being controlled, impaired, or feeling responsible for family members or significant others), (c) personal authority -- the degree to which parents are viewed as peers while intimacy and individuation are maintained, (d) intergenerational intimidation -- the degree of intimidation experienced in relation to parents (i.e., living up to and changing one's behavior and goals to correspond to parental expectations and demands with an inability to be assertive with parents), (e)

intergenerational triangulation -- the degree of involvement with parents' marital and family conflicts, (f) peer intimacy -- the degree of intimacy with significant others, particularly a spouse, and (g) peer individuation -- the degree of individuation in relation to significant others, particularly a spouse (Bray & Harvey; Bray et al., 1984a). The 84 items are rated on a 5-point, Likert scale. Higher subscale scores are always in the favorable direction; higher scores indicate more individuation, intimacy, and personal authority and less triangulation and intimidation.

The psychometric properties of the college version of the PAFS-QVC are addressed in an article which describes the instrument's development (Bray & Harvey, 1992). Overall, the instrument has demonstrated satisfactory reliability and validity. Internal consistencies (Cronbach's alpha) range from .75 to .92 with a mean of .83 for the seven subscales. Stability of the subscales over a two-month period range from .56 to .80 with a mean of .67. In another study Bray et al. (1987) reported internal consistency ranging from .77 to .96 with a mean of .90 and stability of .71 to .95 with a mean of .80.

The validity of the PAFS-QVC is supported by significant correlation between PAFS-QVC subscales and other measures of family functioning (e.g., Family Adaptability and Cohesion Evaluation Scales; Olson, Bell, & Portner, 1978; Olson, Portner, & Bell, 1982). Also, Bray, Harvey and Williamson (1987) found that, as predicted, PAFS-QVC subscale scores correlated negatively with measures of psychological distress and health distress. This indicates that greater individuation, intimacy, and personal authority and less triangulation and intimidation are associated with greater physical and psychological health. Also, all of the subscales except the Intergenerational Intimidation subscale have been

found to discriminate between clinical and nonclinical samples of college students (Bray & Harvey, 1992). Overall, the college version of the PAFS-Q has demonstrated adequate convergent validity.

Procedures

After participants elected to sign the informed consent form (see Appendix C), they completed the demographics questions, the Career Decision-Making Self-Efficacy Scale-short form (Betz et al., 1996), the Career Thoughts Inventory (Sampson et al., 1994), the relationship and system maintenance dimensions of the Family Environment Scale (Moos & Moos, 1994), the Vocational Identity subscale of My Vocational Situation (Holland et al., 1980), and the Personal Authority in the Family System Questionnaire-college student version (Bray & Harvey, 1992). The instruments were put into a packet and distributed to students. Two forms of this packet were generated, the second form with the instruments in the reverse order of that of the first. This allowed for the examination of potential effects of the order of instrument presentation and potential effects of fatigue. These materials were completed by participants in one administration in intact classroom settings during regular class hours. Completion of all instruments took 30 to 45 minutes. To ensure confidentiality students' names were not collected. The only time students' names were involved in the study was when they signed the consent form. Group signature pages were attached to the consent form which approximately 20 students per page signed. Names of individual students were not in any way connected to individual results.

Data Analysis

Several levels of statistical analysis were conducted. Descriptive statistics including means, medians, modes, ranges, and standard deviations were calculated for each variable. Data were inspected for skewness, kurtosis, outliers, and other potential problems. Correlations between all variables were examined prior to conducting inferential statistics due to potential problems with multicollinearity. Cronbach's alpha was calculated for each subscale to ensure suitability for inclusion in subsequent analyses. Prior to testing hypotheses, a Multivariate Analysis of Variance (MANOVA) was conducted between the sexes on the FES subscales, the PAFS-QVC subscales, CDMSE Total, the three subscales of the CTI, and the VI subscale of the MVS. Because no sex differences were found, scores were collapsed across gender. Prior to testing hypotheses, a Multivariate Analysis of Variance (MANOVA) was conducted between the two alternate forms of the questionnaire on the FES subscales, the PAFS-QVC subscales, CDMSE Total, the three subscales of the CTI, and the VI subscale of the MVS. Because no differences were found due to the form of the questionnaire, scores on the CDMSE Total, the three CTI subscales, and the VI subscale of the MVS were collapsed across form.

The first six hypotheses were tested using multiple regression analysis. Multiple regression analysis is a method of estimating the degree of linear relationship between one or more independent variables and a dependent variable. It allows statements to be made concerning the proportion of observed variability in the dependent variable that is explained by the combination of independent variables. The use of multiple regression allows

statements to be made concerning the magnitude of the effect of the independent variables on the dependent variable.

The final two hypotheses, hypotheses 7 and 8, were tested using canonical correlation analysis. Canonical correlation is employed in order to study the relationships between sets of variables when each set of variables consists of at least two variables (i.e., a variate). Thus, the degree of relationship between two or more sets of dependent variables and two or more sets of independent variables can be analyzed. The squared canonical correlation coefficient indicates the proportion of variance shared by the two composites derived from the two variable sets. To test hypothesis 7, canonical correlation was used to test the relationship between a variate composed of personal authority in the family system (7 subscales of the PAFS-QVC) and a variate composed of dysfunctional career thoughts (3 subscales of the CTI). To test hypothesis 8, canonical correlation was used to test the relationship between a variate composed of quality of family relationships (3 family relationship subscales of the FES) and family system maintenance (2 system maintenance subscales of the FES) and a variate composed of dysfunctional career thoughts (3 subscales of the CTI). The alpha level of significance for all analyses was set at .05.

CHAPTER 3

RESULTS

This chapter provides the results of the present study. A description of the sample characteristics is presented first. This is followed by a description of the preliminary data analyses which were conducted prior to hypothesis testing. These included an examination of the correlation matrix of all variables to be used in hypothesis testing, examination of the obtained reliability of each scale to determine suitability for inclusion in analyses, examination of possible effects of order of instrument presentation and fatigue, and examination of potential effects of gender. Then, the results of each research hypothesis are presented. At the conclusion of the chapter a summary of the results of the research hypotheses is presented.

Sample Characteristics

To investigate the relationship between family of origin variables and variables related to career development, 243 undergraduate student volunteers from a Southern university were sampled. Participants were obtained from seven undergraduate courses in the Department of Psychology and Behavioral Sciences (i.e., one section each of “General Psychology”, “Psychology of Personality”, “Practical Psychology”, “Physiological Psychology”, “Psychological Testing”, “Elementary Statistical Methods of the Social

Sciences”, and “Abnormal Psychology”). In terms of general characteristics of the participants, “General Psychology” is a freshman-level course taken by students from all disciplines. “Practical Psychology” is a course taken by students of all majors and non-degree-seeking students. “Psychology of Personality” and “Elementary Statistical Methods of the Social Sciences” are sophomore-level courses taken primarily by psychology majors. “Physiological Psychology” and “Psychological Testing” are junior-level courses taken primarily by psychology majors. Finally, “Abnormal Psychology” is a senior-level course taken almost exclusively by psychology majors. Of the 243 students given the opportunity to participate, all did so.

Of the 243 students who completed the questionnaire packet, 226 met the age criteria (i.e., identified themselves as being 30 years old or younger). Only these 226 were included in the analyses. Participants included in analyses ranged in age from 13 to 30 years old with a mean age of 20.4 years ($SD = 2.3$). Of the 226 participants 131 were female (58%) and 95 were male (42%). Furthermore, 181 were Anglo-American, not of Hispanic origin (80.1%), 34 were African American (15.0%), 8 were Hispanic (3.5%), 1 was Native American (0.4%), and 2 selected “Other” for their race (i.e., Asian American, Pacific Islander, etc.).

Preliminary Data Analysis

This section contains statistics obtained prior to hypothesis testing. This includes an examination of the correlation matrix of all variables, examination of the obtained reliability of the scales to be included in hypothesis testing, examination of possible effects of order of instrument presentation, and examination of potential effects of gender.

Correlation of All Variables to be Used in Hypothesis Testing

Prior to any analyses being conducted on the data set, a correlation matrix of all variables to be used in hypothesis testing was examined (see Table 1). Examination of the relationships among the variables reveals that, although none of the correlations are high, several of the variables correlate at least moderately. Career decision-making self-efficacy correlates moderately with all four of the dysfunctional career thoughts measures (i.e., commitment anxiety, decision-making confusion, external conflict, and total score; $r = -.43, -.50, -.29, \text{ and } -.50$, respectively). Vocational identity also correlates moderately with all four of the dysfunctional career thoughts measures (i.e., commitment anxiety, decision-making confusion, external conflict, and total score; $r = -.56, -.56, -.35, \text{ and } -.58$, respectively). Career decision-making self-efficacy correlates moderately with vocational identity ($r = .48$). Several of the personal authority in the family system measures correlate moderately with the measures of family dynamics. Intergenerational individuation, intergenerational intimacy, and intergenerational triangulation are moderately correlated with cohesion ($r = .41, .53, \text{ and } .40$ respectively) and conflict ($r = -.48, -.45, \text{ and } -.42$ respectively). Personal authority correlates moderately with one measure of family dynamics (i.e., expressiveness; $r = .51$) and one measure of family organizational forces (i.e., control; $r = -.40$). Peer individuation correlates moderately with all four of the dysfunctional career thoughts measures (i.e., commitment anxiety, decision-making confusion, external conflict, and total score; $r = -.32, -.31, -.37, \text{ and } -.40$, respectively).

Table 1

Correlation Matrix of All Variables To Be Used in Hypothesis Testing (N = 224)

	1	2	3	4	5	6
1. CTI, Commitment Anxiety	--					
2. CTI, Decision-Making Confusion	.76*	--				
3. CTI, External Conflict	.59*	.62*	--			
4. CTI, Total Score	.91*	.92*	.76*	--		
5. FES, Cohesion	-.06*	.02	-.13	-.04	--	
6. FES, Conflict	.24*	.20*	.24*	.25*	-.61*	--
7. FES, Control	.04	-.02	.08	.03	-.20*	.26*
8. FES, Expressiveness	-.01	.01	-.09	-.03	.48*	-.28*
9. FES, Organization	-.11	-.05	-.10	-.09	.44*	-.30*
10. CDMSE-SF	-.43*	-.50*	-.29*	-.50*	.10	-.21*
11. MVS, Vocational Identity	-.56*	-.56*	-.35*	-.58*	.00	-.12
12. PAFSQ, Intergenerational Individuation	-.22*	-.16*	-.42*	-.27*	.41*	-.48*
13. PAFSQ, Intergenerational Intimacy	-.16*	-.10	-.26*	-.16*	.53*	-.45*
14. PAFSQ, Intergenerational Intimidation	-.18*	-.21*	-.29*	-.26*	.11	-.18*
15. PAFSQ, Intergenerational Triangulation	-.12	-.05	-.15*	-.11	.40*	-.42*
16. PAFSQ, Personal Authority	-.13*	-.11	-.15*	-.15*	.33*	-.27*
17. PAFSQ, Peer Individuation	-.32*	-.31*	-.37*	-.40*	.10	-.27*
18. PAFSQ, Peer Intimacy	-.22*	-.20*	-.16*	-.23*	.02	-.13*

* Significant at $p \leq .05$.

Table 1 (continued)**Correlation Matrix of All Variables To Be Used in Hypothesis Testing (N = 224)**

	7	8	9	10	11	12
1. CTI, Commitment Anxiety						
2. CTI, Decision-Making Confusion						
3. CTI, External Conflict						
4. CTI, Total Score						
5. FES, Cohesion						
6. FES, Conflict						
7. FES, Control	--					
8. FES, Expressiveness	-.44*	--				
9. FES, Organization	.26*	.03	--			
10. CDMSE-SF	-.08	.10	.10	--		
11. MVS, Vocational Identity	-.01	.02	.06	.48*	--	
12. PAFSQ, Intergenerational Individuation	-.24*	.24*	.18*	.23*	.08	--
13. PAFSQ, Intergenerational Intimacy	-.20*	.34*	.29*	.13	.05	.45*
14. PAFSQ, Intergenerational Intimidation	-.23*	.16*	-.13	.25*	.17*	.41*
15. PAFSQ, Intergenerational Triangulation	-.26*	.27*	.14*	.17*	.09	.54*
16. PAFSQ, Personal Authority	-.40*	.51*	.08	.15*	.15*	.19*
17. PAFSQ, Peer Individuation	-.05	.05	.11	.27*	.28*	.45*
18. PAFSQ, Peer Intimacy	-.03	.08	.13*	.13*	.13*	.13

* Significant at $p \leq .05$.

Table 1 (continued)**Correlation Matrix of All Variables To Be Used in Hypothesis Testing (N = 224)**

	13	14	15	16	17	18
1. CTI, Commitment Anxiety						
2. CTI, Decision-Making Confusion						
3. CTI, External Conflict						
4. CTI, Total Score						
5. FES, Cohesion						
6. FES, Conflict						
7. FES, Control						
8. FES, Expressiveness						
9. FES, Organization						
10. CDMSE-SF						
11. MVS, Vocational Identity						
12. PAFSQ, Intergenerational Individuation						
13. PAFSQ, Intergenerational Intimacy	--					
14. PAFSQ, Intergenerational Intimidation	.06	--				
15. PAFSQ, Intergenerational Triangulation	.23*	.37*	--			
16. PAFSQ, Personal Authority	.44*	.14*	.21*	--		
17. PAFSQ, Peer Individuation	.15*	.32*	.21*	.04	--	
18. PAFSQ, Peer Intimacy	.12	.01	.01	.06	.45*	--

* Significant at $p \leq .05$.

Examination of Correlations Among Career Thoughts Inventory Scores

Because Hypotheses 7 and 8 were tested using canonical correlation, one concern prior to hypothesis testing is the potential adverse impact of multicollinearity. The potential for multicollinearity is of particular concern because one of the measures of dysfunctional career thoughts is a total scale score made up of items from the other three measures with the addition of some unique items. To investigate multicollinearity, the correlations of the Career Thoughts Inventory total score and subscale scores were examined (see Table 1). As can be seen, the CTI total score correlates above .75 with each of the three subscale scores. When correlations among predictors are over .70, Tabachnick and Fidell (1989) recommend eliminating one or more of the variables for both logical and statistical reasons. These variables are both redundant and reduce degrees of freedom for error. Therefore, the CTI total score was eliminated and the three subscale scores were retained in subsequent analyses.

Reliability of All Scales To Be Included in Hypothesis Testing

The obtained reliability estimates of the scales used in the analyses were examined to ensure appropriateness for inclusion in analyses testing the study's hypotheses. These obtained reliability estimates are presented in Table 2.

Table 2

Cronbach's Alpha for All Scales To Be Included in Analyses

<u>Scale Name</u>	<u>Reliability</u>	<u>N of items</u>	<u>N of cases</u>
CTI - Total Score	.97	48	207
CTI - Decision-Making Confusion	.95	14	219
CTI - Commitment Anxiety	.89	10	219
CTI - External Conflict	.78	5	224
MVS - Vocational Identity	.89	18	212
Career Decision-Making Self-Efficacy	.96	25	224
Family Environment Scale - Cohesiveness	.78	9	224
Family Environment Scale - Expressiveness	.57	9	224
Family Environment Scale - Conflict	.78	9	225
Family Environment Scale - Organization	.69	9	224
Family Environment Scale - Control	.70	9	221
PAFSQ - Intergenerational Intimacy	.93	23	223
PAFSQ - Intergenerational Individuation	.82	8	225
PAFSQ - Intergenerational Intimidation	.91	8	222
PAFSQ - Intergenerational Triangulation	.80	8	226
PAFSQ - Peer Intimacy	.93	11	224
PAFSQ - Peer Individuation	.80	8	224

As can be seen from examination of Table 2, all scales from the CDMSE, CTI, MVS, and PAFSQ have obtained reliability estimates over .78. The obtained reliability for the CDMSE ($\alpha = .96$) was comparable to that reported in the test manual (i.e., $\alpha = .94$; Betz et al., 1996.). The CTI subscales' obtained reliability estimates were within the ranges reported on the test manual (Sampson et al., 1994). The reliability estimate obtained for the Vocational Identity subscale of the MVS ($\alpha = .89$) was within the range described by Holland et al. (1990; i.e., KR 20 = .86 to .89). The obtained reliability estimates for the

PAFSQ ranged from .79 to .93, which is comparable to those described by Bray et al., (1987) who reported reliability estimates ranging from .77 to .96. The obtained reliability estimates of the FES were somewhat lower than the other instruments, possessing reliability estimates between .57 and .78. However, these reliabilities are consistent with the estimates reported in the FES test manual (Moos & Moos, 1994) which ranged from .61 to .78. Because all obtained reliability estimates are at least in the moderate range, no scales were excluded from use in analyses based solely on their obtained reliability.

Examination of Possible Effects of Order of Presentation and Fatigue

Due to the length of the questionnaire packet (i.e., 224 questions), two alternate forms were created which reversed the order of instrument presentation. This allowed for examination of potential effects of fatigue and order of presentation. A multivariate analysis of variance (MANOVA) was conducted with both family organizational measures (i.e., organization and control), three family dynamics variables (i.e., expressiveness, control, and conflict), seven personal authority in the family system measures (i.e., intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation), four measures of dysfunctional career thoughts (i.e., external conflict, decision-making confusion, commitment anxiety, and the total scale score), vocational identity, and career decision-making self-efficacy entered as dependent variables and form of the questionnaire packet entered as the independent variable with two levels (form 1 and 2). Total N of 226 was reduced to 224 with the deletion of cases missing scores on one or

more variables. The combined dependent variables were not significantly affected by form, $F(17, 206) = 1.33, p = .179$. These results revealed no significant association between the form of the questionnaire packet and the combination of dependent variables. Therefore, participants' responses were collapsed across both forms in subsequent analyses.

Examination of Possible Effects of Gender

Due to sex differences linked to some of the variables being examined in the current study, the combined dependent variables were examined for possible sex differences. A multivariate analysis of variance (MANOVA) was conducted with both family organizational measures (i.e., organization and control), three family dynamics variables (i.e., expressiveness, control, and conflict), seven personal authority in the family system measures (i.e., intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation), four measures of dysfunctional career thoughts (i.e., external conflict, decision-making confusion, commitment anxiety, and the total scale score), vocational identity, and career decision-making self-efficacy entered as dependent variables and participants' gender entered as the independent variable. Total N of 226 was reduced to 224 with the deletion of cases missing scores on one or more variables. The combined dependent variables were not significantly affected by respondents' gender, $F(18, 205) = 1.08, p = .373$. These results revealed no association between the gender of the respondent and their responses to the variables to be used as dependent variables in subsequent

analyses. Therefore, participants' responses were collapsed across gender in all subsequent analyses.

Hypotheses

In this section the results of the eight experimental hypotheses are presented. The first three hypotheses examined the relationship between family dynamics, family organizational forces, and personal authority in the family system and vocational identity. The fourth, fifth, and sixth hypotheses examined the relationship between family dynamics, family organizational forces, and personal authority in the family system and career decision-making self-efficacy. The seventh hypothesis examined the relationship between personal authority in the family system and dysfunctional career thoughts. The eighth hypothesis examined the relationship between family dynamics and dysfunctional career thoughts.

Hypothesis 1

The first hypothesis tested in the present study concerns the relationship between family relational dynamics and the attainment of vocational identity for college-aged adults. Specifically, it was hypothesized that cohesion and expressiveness are significantly positively related and conflict is significantly negatively related to the attainment of vocational identity. The relationship between these variables was examined using simultaneous multiple regression analysis. Table 3 displays the unstandardized regression coefficients (B), standard error of the unstandardized regression coefficients, and the standardized regression coefficients (β). In this regression all of the three variables failed

to significantly predict variance $R = .16$ ($R^2 = .03$), $F(3, 220) = 1.91$, $p = .13$. None of the three regression coefficients differed significantly from zero.

Table 3

Summary of Simultaneous Multiple Regression Analysis for Family Dynamics Predicting Vocational Identity ($N = 224$)

<u>Variable</u>	<u>B</u>	<u>SE B</u>	<u>β</u>
Expressiveness	0.084	0.183	.04
Conflict	-0.395	0.168	-.20
Cohesion	-0.281	0.184	-.14

Note. $R^2 = .03$; Adjusted $R^2 = .01$.

* $p < .05$.

These results indicate that these three elements of family dynamics (i.e., expressiveness, conflict, and cohesion) do not predict the attainment of vocational identity. This result is not particularly surprising when the correlations of the family relational dynamics with vocational identity are examined (see Table 1). The relationships of cohesion, expressiveness, and conflict with vocational identity were very weak ($r = -.003$, $.024$, and $-.122$, respectively).

Hypothesis 2

The second hypothesis tested the prediction that for college-aged adults family organizational forces are related to the attainment of vocational identity. Specifically, it was predicted that high levels of organization and control within the family would be significantly related to the attainment of vocational identity. The relationship between these variables was examined using simultaneous multiple regression analysis. Table 4 displays the unstandardized regression coefficients (**B**), standard error of the unstandardized regression coefficients, and the standardized regression coefficients (**β**). In this regression both of the predictors failed to significantly predict variance $R = .00$ ($R^2 = .00$), $F(2, 221) = 0.45$, $p = .64$. Neither of the regression coefficients differed significantly from zero.

Table 4

Summary of Simultaneous Multiple Regression Analysis for Family Organizational Forces Predicting Vocational Identity ($N = 224$)

<u>Variable</u>	<u>B</u>	<u>SE B</u>	<u>β</u>
Organization	0.139	0.149	.07
Conflict	-0.061	0.142	-.03

Note. $R^2 = .00$; Adjusted $R^2 = .00$.

* $p < .05$.

Neither of the family organizational forces (i.e., organization and control) predicted the attainment of vocational identity. This is not surprising when the correlations between

each of the predictors and the criterion are examined. The correlation between family organization and vocational identity was low ($r = .057$) as was the correlation between family control and vocational identity ($r = -.012$).

Hypothesis 3

Of particular interest in the present study is the hypothesized relationship between personal authority in the family system and vocational identity. Specifically, for college-aged adults it was predicted that the set or a subset of the personal authority in the family system variables (i.e., intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation) is significantly positively related to the attainment of vocational identity. The hypothesized relationship was investigated using simultaneous multiple regression analysis. Table 5 displays the unstandardized regression coefficients (B), standard error of the unstandardized regression coefficients, and the standardized regression coefficients (β).

Table 5

Summary of Simultaneous Multiple Regression Analysis for Personal Authority in the Family System Variables Predicting Vocational Identity ($N = 224$)

<u>Variable</u>	<u>B</u>	<u>SE B</u>	<u>β</u>
Peer Individuation	0.228	0.065	.29*
Personal Authority	0.090	0.043	.15*
Intergenerational Individuation	-0.091	0.067	-.13
Intergenerational Intimacy	-0.006	0.023	-.02
Intergenerational Intimidation	0.059	0.042	.10
Intergenerational Triangulation	0.021	0.061	.02
Peer Intimacy	0.005	0.045	.01

Note. $R^2 = .11$; Adjusted $R^2 = .08$.

* $p < .05$.

In this regression analysis, two of the regression coefficients differed significantly from zero. Peer individuation and personal authority accounted for a significant proportion of the unique variance in vocational identity $R = .34$ ($R^2 = .11$), $F(7, 216) = 3.95$, $p = .0004$. Altogether, 11% (8% adjusted) of the variability in vocational identity was predicted by peer individuation and personal authority. These significant standardized regression coefficients indicate that the attainment of these developmental tasks of young adulthood,

peer individuation and personal authority, positively predicts the attainment of vocational identity.

Hypothesis 4

For college-aged adults, it was predicted that family relationship dynamics would be related to career decision-making self-efficacy. Specifically, it was predicted that cohesion and expressiveness are significantly positively related and conflict is significantly negatively related to career decision-making self-efficacy. The relationship between these variables was investigated using simultaneous multiple regression analysis. Table 6 displays the unstandardized regression coefficients (**B**), standard error of the unstandardized regression coefficients, and the standardized regression coefficients (**β**).

Table 6

Summary of Simultaneous Multiple Regression Analysis for Family Dynamics Predicting Career Decision-Making Self-Efficacy (N = 226)

<u>Variable</u>	<u>B</u>	<u>SE B</u>	<u>β</u>
Conflict	-1.697	0.596	-.23*
Cohesion	-0.531	0.654	-.07
Expressiveness	0.579	0.648	.06

Note. $R^2 = .05$; Adjusted $R^2 = .04$.

* $p < .05$.

In this regression analysis, one of the three regression coefficients, conflict, differed significantly from zero. Family conflict accounted for a significant proportion of the unique variance in career decision-making self-efficacy $R = .22$, ($R^2 = .05$), $F(3, 222) = 3.76$, $p \leq .0116$. Five percent of the variability in career decision-making self-efficacy was predicted by family conflict. This negative standardized regression coefficient indicates a significant negative relationship between family conflict and career decision-making self-efficacy.

Hypothesis 5

For college-aged adults, it was predicted that family organizational forces would be related to career decision-making self-efficacy. Specifically, it was predicted that organization and control would be positively related to career decision-making self-efficacy. The relationship between these variables was examined using simultaneous multiple regression analysis. Table 7 displays the unstandardized regression coefficients (B), standard error of the unstandardized regression coefficients, and the standardized regression coefficients (β).

Table 7

Summary of Simultaneous Multiple Regression Analysis for Family Organizational Forces Predicting Career Decision-Making Self-Efficacy ($N = 226$)

<u>Variable</u>	<u>B</u>	<u>SE B</u>	<u>β</u>
Organization	0.957	0.527	.12
Control	-0.799	0.503	-.11

Note. $R^2 = .02$; Adjusted $R^2 = .01$.

* $p < .05$.

In this regression analysis, both of the family organizational variables (i.e., organization and control) failed to significantly predict variance $R = .14$, ($R^2 = .02$), $F(2, 223) = 2.31$, $p = .10$. Neither of the family organizational forces predict career decision-making self-efficacy. This is not particularly surprising given that neither the relationship between family control and career decision-making self-efficacy ($r = -.08$) nor the relationship between family organization and career decision-making self-efficacy ($r = .10$) was as strong as anticipated.

Hypothesis 6

Of particular interest in the present study is the hypothesized relationship between career decision-making self-efficacy and the seven personal authority in the family system variables. Specifically, it was predicted that the set or a subset of the personal authority in the family system variables (i.e., intergenerational intimacy, intergenerational individuation,

personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation) is positively related to career decision-making self-efficacy. The relationship between these variables was examined using simultaneous multiple regression analysis. Table 8 displays the unstandardized regression coefficients (**B**), standard error of the unstandardized regression coefficients, and the standardized regression coefficients (**β**).

Table 8

Summary of Simultaneous Multiple Regression Analysis for Personal Authority in the Family System Variables Predicting Career Decision-Making Self-Efficacy ($N = 226$)

<u>Variable</u>	<u>B</u>	<u>SE B</u>	<u>β</u>
Intergenerational Intimidation	0.307	0.149	.15*
Peer Individuation	0.475	0.232	.17*
Intergenerational Individuation	0.111	0.238	.04
Intergenerational Intimacy	0.018	0.083	.02
Intergenerational Triangulation	0.093	0.217	.03
Personal Authority	0.213	0.152	.10
Peer Intimacy	0.096	0.160	.04

Note. $R^2 = .12$; Adjusted $R^2 = .10$.

* $p < .05$.

In this regression analysis, two of the regression coefficients differed significantly from zero. Peer individuation and intergenerational intimidation accounted for a significant proportion of the unique variability in career decision-making self-efficacy $R = .35$ ($R^2 = .12$), $F(7, 218) = 4.38$, $p \leq .0001$. Altogether, 12% (10% adjusted) of the variability in career decision-making self-efficacy was predicted by intergenerational intimidation and peer individuation. The attainment of the two developmental tasks of young adulthood, peer individuation and intergenerational intimidation, positively predicts the attainment of career decision-making self-efficacy.

Hypothesis 7

Although the literature does not support specific predictions concerning the nature of the relationship between personal authority in the family system and dysfunctional career thoughts, Williamson's (1981, 1982a, 1982b) theory does lead to the hypothesis that there is a negative relationship between personal authority and dysfunctional career thoughts. It is intuitively appealing that individuals with greater individuation and personal authority and less triangulation and intimidation will have more functional career-related thoughts. The set, or more likely a subset, of the seven variables comprising personal authority in the family system (i.e., intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation) is hypothesized to be negatively related to the set or a subset of the three variables comprising dysfunctional career thoughts (i.e., career decision-making confusion, commitment anxiety, and external conflict). This hypothesis was tested using canonical

correlation analysis in order to discover the dimensions along which personal authority in the family system variables are related to dysfunctional career thoughts variables.

The overall relationship was significant with all three canonical roots included, $F(21, 654) = 4.00$, $p < .000$. This indicates that there is a reliable relationship between at least one variate composed of personal authority in the family system variables and at least one variate composed of dysfunctional career thoughts variables. The first canonical correlation was .507, accounting for 79.3% of the variance in the overall solution; the second was .257, accounting for 16.3% of the variance in the overall solution; the third was .137, accounting for 4.4% of the variance in the overall solution. After partialing out the variance attributed to the first canonical correlation, the second and third canonical roots did not account for a significant proportion of the remaining variance, $F(12, 434) = 1.61$, $p = .084$). Therefore, the first pair of canonical variates captured the significant relationships between the two sets of variables. Because the second and third canonical roots did not account for a significant proportion of the overall variance in the solution, only the first canonical variate pair was interpreted. Summary data on this canonical correlation analysis is presented in Table 9. Shown in the table are correlations between the variables and canonical variates, standardized canonical variate coefficients, within-set variance accounted for by each canonical variate (percent of variance), between-set variance accounted by each canonical variate (redundancies), canonical correlations, and variance accounted for in the overall solution by each canonical variate pair (percent of variance). Information for the second and third canonical variate is presented for purposes of completeness only.

Table 9

Summary of Canonical Correlation Analysis Examining the Relationship Between Personal Authority in the Family System Variables and Dysfunctional Career Thought Variables (N = 226)

	1st Can. Variate Corr. ^a	2nd Can. Variate Coeff. ^b	2nd Can. Variate Corr. Coeff.	3rd Can. Variate Corr. Coeff.		
Dysfunctional Career Thoughts Set						
Commitment Anxiety	-.653	-.232	.567	.111	.502	1.564
Decision-Making Confusion	-.587	.196	.797	1.201	-.143	-1.100
External Conflict	-.989	-.975	.025	-.786	-.149	-.380
Percent of Variance	58.265		31.898		9.838	
Redundancy	14.948		2.110		0.184	
Personal Authority Set						
Intergenerational Intimacy	.535	.196	.252	.087	-.304	-.172
Intergenerational Individuation	.848	.572	.455	.943	-.137	.198
Personal Authority	.313	.112	-.112	-.225	-.193	-.037
Intergenerational Intimidation	.553	.246	-.190	-.340	.413	.679
Intergenerational Triangulation	.324	-.228	.176	-.042	-.569	-.872
Peer Intimacy	.338	.059	-.523	-.361	-.440	-.430
Peer Individuation	.744	.393	-.457	-.608	-.116	-.016
Percent of Variance	31.180		11.884		12.143	
Redundancy	7.999		0.786		0.228	
Canonical Correlation	.507		.257		.137	
Percent of Variance	79.326		16.285		4.390	

^a correlation between the canonical variate and the variable (i.e., canonical loadings)

^b standardized structural coefficient (i.e., canonical weights)

The variate comprised of dysfunctional career thoughts variables mostly strongly reflects the contribution of external conflict (canonical weight = -.975), with commitment

anxiety (canonical weight = $-.232$) and decision-making confusion (canonical weight = $-.196$) making much smaller contributions. This External Conflict variate extracts a substantial proportion of the variance in these three variables (58%). The variate extracts only a modest proportion of the variance in the personal authority variables (15%; i.e., redundancy).

The variate comprised of personal authority in the family system variables most strongly reflects intergenerational individuation (canonical weight = $.572$) and peer individuation ($.393$), with intergenerational intimidation (canonical weight = $.246$) and intergenerational triangulation (canonical weight = $-.228$) making more modest contributions, and the remaining variables, intergenerational intimacy (canonical weight = $.196$), personal authority (canonical weight = $.112$), and peer intimacy (canonical weight = $.059$) making lesser contributions to the variate. This Individuation variate extracts a modest amount of the variance in these seven variables (31%). The variate extracts only a small amount of the variance in the dysfunctional career thoughts variables (8%).

Taken together, these variates indicate that less conflict with others concerning the career decision-making process is associated with greater ability to act in an autonomous manner without feeling responsible for or controlled by others. Achievement of the developmental task of individuation from peers and parents is associated with less impairment in career decision-making. This points to the importance of the developmental tasks in adolescence and young adulthood in career development.

Hypothesis 8

Even though the impact of family dynamics on career-related cognition has not previously been investigated, such a relationship is theoretically appealing. In the present study it was hypothesized that low cohesion and expressiveness and high conflict would be related to dysfunctional career-related thoughts (i.e., commitment anxiety, decision-making confusion, and external conflict). This hypothesis was tested using canonical correlation analysis to discover the dimensions along which family dynamics are related to dysfunctional career thoughts.

The overall canonical relationship was significant with all three canonical roots included $F(9, 666) = 3.10, p < .001$. This indicates that there is a reliable relationship between at least one variate composed of family dynamics and at least one variate composed of dysfunctional thoughts. The first canonical correlation was .285, accounting for 68.2% of the variance in the overall solution; the second was .194, accounting for 30.2% of the variance in the overall solution; the third was .045, accounting for 1.5% in the overall solution. After partialing out the variance attributed to the first canonical correlation, the second and third canonical roots did not account for a significant proportion of the remaining variance, $F(4, 442) = 2.25, p = .063$. Therefore, the first pair of canonical variates accounted for the significant relationships between the two sets of variables. Because the second and third canonical variate pairs did not account for a significant proportion of the variance in the overall solution, only the first canonical variate pair was interpreted. Summary data on all three canonical variate pairs is presented in Table 10. Shown in the table are correlations between the variables and canonical variate,

standardized canonical variate coefficients, within-set variance accounted for by the canonical variate (percent of variance), redundancies, and canonical correlations. Information on the second and third canonical roots is presented for purposes of completeness only.

Table 10

Summary of Canonical Correlation Analysis Examining the Relationship Between Family Dynamics Variables and Dysfunctional Career Thought Variables (N = 226)

	1st Can. Variate Corr. ^a	2nd Can. Variate Coeff. ^b	2nd Can. Variate Corr. Coeff.	3rd Can. Variate Corr. Coeff.		
Dysfunctional Career Thoughts Set						
Commitment Anxiety	.917	.468	.019	-.418	.398	1.455
Decision-Making Confusion	.897	.333	.407	1.373	-.171	-.834
External Conflict	.815	.334	-.432	-1.040	-.386	-.720
Percent of Variance	77.013		11.756		11.231	
Redundancy	6.248		0.443		0.022	
Family Dynamics Set						
Cohesion	-.219	.537	.961	1.036	-.167	-.730
Expressiveness	-.110	-.017	.610	.192	.785	1.123
Conflict	.907	1.229	-.412	.273	.084	-.040
Percent of Variance	29.449		48.851		21.701	
Redundancy	2.389		1.839		0.043	
Canonical Correlation	.285		.194		.045	
Percent of Variance	68.228		30.230		1.541	

^a correlation between canonical variate and the variables (i.e., canonical loadings)

^b structural coefficient (i.e., canonical weights)

The variate comprised of dysfunctional career thoughts most strongly reflects the contribution of commitment anxiety (canonical weight = .468) with decision-making confusion (canonical weight = .333) and external conflict (canonical weight = .334) making nearly as great contributions to the variate. This variate appears to be a general dysfunctional career thoughts variate, reflecting all three dysfunctional career thoughts variables with commitment anxiety making the greatest contribution and decision-making confusion and external conflict making substantial contributions as well. This variate extracts a substantial percent of variance in these three variable (77%). This variate extracts only a modest percentage of variance from the family dynamics variables (6.2%, i.e., redundancy).

The variate comprised of family dynamics variables most strongly reflects the contribution of conflict (canonical weight = 1.229) with cohesion making a moderate contribution (canonical weight = .537) and expressiveness making a minimal contribution (canonical weight = -.017). This variate appears to reflect primarily the contribution of conflict. This Conflict variate extracts a modest proportion of variance in the three family dynamics variables (29.4%). The variate extracts a small amount of the variance in the dysfunctional career thoughts variables (2.9%; i.e., redundancy).

Taken together, this analysis reveals that a general dysfunctional career thoughts variate is associated with a variate composed primarily of conflict in the family of origin. Dysfunctional career thoughts are associated with openly expressed anger and conflict among family members. This indicates that conflict in the family of origin is associated with a range of dysfunctional career thoughts in young adulthood.

Summary

In this chapter the results of eight hypotheses were presented. Of the 8 hypotheses, five were at least partially supported. See Table 11 for a summary of the results of each research hypothesis presented in written form.

Table 11

Summary of Results of Research Hypotheses

RH 1: Family dynamics; cohesion, expressiveness, and conflict; did not significantly predict vocational identity.

RH 2: Family organizational forces, organization and control, did not significantly predict vocational identity.

RH 3: Two elements of personal authority in the family system, peer individuation and personal authority, predicted vocational identity. Respondents with greater peer individuation and greater personal authority were found to have greater vocational identity.

RH 4: One aspect of family dynamics, conflict, predicted career decision-making self-efficacy. Respondents who reported less family conflict were found to have greater career decision-making self-efficacy.

RH 5: Family organizational forces, organization and control, did not significantly predict career decision-making self-efficacy.

RH 6: Two elements of personal authority in the family system, peer individuation and intergenerational intimidation, predicted career decision-making self-efficacy. Respondents who reported greater peer individuation and less intergenerational intimidation were found to have greater career-decision-making self-efficacy.

Table 11 (continued)

RH 7: A variate composed of Individuation was associated with a variate composed of External Conflict. Less conflict with others in the career decision-making process was associated with greater ability to act autonomously without feeling responsible for or controlled by others.

RH 8: A general dysfunctional career thoughts variate was associated with a variate composed primarily of conflict in the family of origin. Dysfunctional career thoughts were associated with openly expressed anger and conflict among family members.

CHAPTER 4

DISCUSSION

The present study was guided by Bowen's (1978) family systems theory and Williamson's (1981, 1982a, 1982b) intergenerational family systems theory in the selection of outcome measures in the area of career development. Differentiation of self leads to the ability to separate one's own thoughts, goals, and affect from those of others, particularly during periods of intense anxiety. Therefore, differentiation is a necessary developmental task for the attainment of vocational identity, career self-efficacy beliefs, and functional career-relevant thoughts. The primary purpose of this study was to examine the relationship between the family of origin and career self-efficacy, career thoughts, and vocational identity.

The final sample obtained for this study was 226 Louisiana Tech University undergraduate students who met the age criteria (i.e., under 30 years of age). Participants were fairly evenly split between males (42%) and females (58%) and were largely Anglo-American (80%) with African Americans making up the largest minority group of participants (15%) and Hispanics, Native Americans, and "Other" comprising the ethnic groups of the remaining participants. Participants completed demographic questions, the CDMSE-SF, CTI, the relationship and system maintenance dimensions of the FES, the

Vocational Identity subscale of MVS, and the PAFS-QVC. The research hypotheses for this study were tested using multiple regression and canonical correlation. The alpha level of significance was set at .05.

Prior to testing the hypotheses of interest in the present study, some preliminary data analyses were conducted. First, the correlations among all the variables in the present study were examined. Based on its high correlation with all three of the CTI subscale scores, the CTI total score was not used in hypothesis testing. Second, the obtained reliability estimates of the scales to be used in hypothesis testing were examined to ensure appropriateness for inclusion in analyses testing the study's hypotheses. The obtained reliability estimates for the scales from four of the five instruments (i.e., CDMSE, CTI, MVS, and PAFSQ) had at least moderate obtained reliability (i.e., estimates over .78) and were consistent with the reliability estimates reported in the test manuals. The scales of the fifth instrument, the FES, had somewhat lower obtained reliability estimates than the other scales in the study. However, these estimates, which were between .57 and .78, are consistent with those reported in the test manual. Because all obtained reliability estimates were at least in the moderate range, no scales were excluded from the present study due to their obtained reliability. Third, due to the length of the questionnaire packet, two forms were generated in order to examine possible effects of order of presentation and fatigue. No significant effect of the order of presentation and fatigue was found, allowing for the data to be collapsed across the two forms of the questionnaire in subsequent analyses. Lastly, due to sex differences linked to some of the variables being examined, the data were examined for possible gender effects across all dependent variables. No significant effect

of gender was found, allowing for the data to be collapsed across participants' gender in subsequent analyses.

Findings of Hypothesis 1

Hypothesis 1 stated that for college-aged adults, family relationship dynamics will be related to the attainment of vocational identity. Specifically, cohesion and expressiveness will be positively related and conflict will be negatively related to the attainment of vocational identity. The results of hypothesis 1 indicate that family dynamics (i.e., cohesion, expressiveness, and conflict) in the family of origin of college-aged adults did not predict the attainment of vocational identity. In fact, there was practically no relationship found between any of these family dynamics and vocational identity.

This pattern of family dynamics; high cohesion, high expressiveness, and low conflict; was referred to as the "supportive family style" by Bray, Williamson, and Malone (1984a). The developmental benefit of this family style, although intuitively appealing, has received mixed support in the literature. Eigen, Hartman, and, Hartman (1987) failed to find a relationship between career indecision and these family dynamics while Mallinckrodt (1998) found a warm, positive parenting style to be positively related to social self-efficacy. The present study failed to support the presumed benefit of this parenting style.

This hypothesis was based on the earlier findings of Johnson, Buboltz, and Nichols (1998) who found that high expressiveness, high cohesion, and low conflict were positively related to vocational identity. The present study failed to replicate these earlier findings. This could be due to differences in the obtained samples of the two studies. These studies' participants differed in terms of region of the country, gender, and ethnic makeup. Johnson,

Buboltz, and Nichols' participants were obtained from a university in the Southwest while the participants in the present study were obtained from a university in the South. Johnson, Buboltz, and Nichols' participants were largely female (79%) while the present study's participants were closer to being evenly distributed between the genders (58%). In terms of ethnic groups, Johnson, Buboltz, and Nichols' participants consisted of Anglo Americans (59%) and Mexican Americans (41%) while the present study's participants were comprised on Anglo Americans (80%), African Americans (15%), and Hispanics, Native Americans, "Other" (5%).

It is certainly possible that family dynamics differentially effect individuals' vocational identity based on their gender and cultural background. For example, the vocational identity of Anglo Americans and Mexican Americans attending college in the Southwest may be formed in part within the family of origin, leading to a supportive family style having a significant impact on vocational identity while the vocational identity of Anglo Americans and African Americans attending college in the South may be largely impacted by extrafamilial influences, such as peer groups, leading to finding the lack of a significant relationship between a supportive family style and vocational identity.

Unfortunately, the lack of support for the impact of a supportive family style on vocational identity makes discussing implications of this hypothesis equivocal. A lack of significant results does not necessarily indicate that these family dynamics do not impact vocational identity. However, for purposes of interpreting the results of this hypothesis, a lack of relationship must be concluded. This implies that the breadth of the impact of the supportive family style may not be as great as previously believed. The lack of support for

this hypothesis has implications for family therapists as well as career counselors. If these clinicians have previously been guided by a belief in the positive impact of the supportive family style, this study suggests that these efforts may not be well spent. The supportive family style may not be of concern to career counselors.

Findings of Hypothesis 2

Hypothesis 2 stated that for college-aged adults, family organizational forces will be related to the attainment of vocational identity. Specifically, high levels of organization and high levels of control will be positively related to the attainment of vocational identity. The results of hypothesis 2 indicate that neither of the family organizational forces investigated (i.e., organizational and control) were related to the attainment of vocational identity for college-aged adults. The present study failed to support the notion that the degree of family structure and organization in planning activities and responsibilities (i.e., organization) and setting rules and procedures used in running the family (i.e, control) is important in the development of this domain of identity. This lack of a relationship, although counter-intuitive, is interesting. It indicates that the present study does not support the notion that the forces which organize families and provide the context for family interaction relate to the formation of vocational identity of college-aged adults.

The context of family interaction does not appear to be related to the formation of vocational identity. This hypothesis for the present study was generated in an attempt to clarify previous research investigating the role of organizing forces within families impact on vocational identity (Penick & Jespen, 1992). Penick & Jespin found that a general construct of organization was not associated with vocational identity. This prior study and

the present study differed in the instruments used to measure the constructs. However, Penick and Jespen also measured locus of control as well as the level of several different parenting styles (i.e., Democratic, Laissez-faire, and Authoritarian) and found that, of all the elements of system maintenance measured, only locus of control was found to be associated with students' vocational identity. In this respect, the present study is consistent with the extant research in its failure to demonstrate a relationship between vocational identity and system maintenance dimensions of family functioning.

While it is intuitively appealing that the context in which family interaction and discourse occurs would be related to vocational identity, it may be the case that the structure of the family of origin simply does not impact the development of this domain of identity, at least not as measured in the present study. This hypothesis was considered speculative in the present study. Family systems theorists (e.g., Haley, 1980; Minuchin, 1974) have discussed for many years the importance of the structure of family interactions and the context in which this interaction occurs. However, perhaps a "clear and stable picture of one's goals, interest, and talents" (Holland, 1992, p. 5) is impacted by more proximal forces than family organization.

The lack of support for the impact of the system maintenance dimensions of family functioning on vocational identity makes the implications of this hypothesis ambiguous. Although an as yet undiscovered relationship may indeed exist, for purposes of interpreting the results of this hypothesis, a lack of relationship can be concluded. The present study does not support the notion that the forces which organize families and provide the context for family interaction relate to the formation of vocational identity of college-aged adults.

The lack of support for this hypothesis has implications particularly for career counselors. If these clinicians have previously been guided by a belief that the ways in which families are organized and structured has some clinical utility in the career counseling arena, these results suggest that this perspective for viewing the client may be of no or limited clinical utility.

Findings of Hypothesis 3

Hypothesis 3 stated that for college-aged adults, personal authority in the family system will be positively related to the attainment of vocational identity. No predictions were made concerning the relationship between specific developmental tasks in the establishment of personal authority and vocational identity. However, the set or a subset of personal authority tasks (i.e., intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation) was predicted to be positively related to the attainment of vocational identity. The results of hypothesis 3 indicate that the attainment of two of the seven developmental tasks of personal authority predicted the level of vocational identity in college-aged adults. Specifically, peer individuation and personal authority were found to be positively related to the attainment of vocational identity. The strength of the relationship of these two variables with vocational identity was in the moderate range. In other words, the degree of individuation with a significant other and the degree to which parents are seen as peers while intimacy and individuation are maintained are both moderately related to the possession of a clear and stable set of interests, goals, and talents.

These results provide support for the extension of Bowen family systems theory into the area of career counseling. It is intuitively appealing that individuation with a significant other and personal authority are important in this aspect of identity development. The establishment of distinct boundaries between self and others may assist in separation of one's own thoughts, goals and values, and those of others, thereby contributing to developing one's own identity as a distinct individual, facilitating the development of vocational identity. These findings are consistent with previous research that has repeatedly found that conflict between self and important others (e.g., one's spouse or parents) is a source of difficulty in the career decision-making process (Sampson, Peterson, Lenz, Reardon, Saunders, 1994).

There are clear clinical implications for the findings of this hypothesis. A range of clinicians including family therapists, career counselors, marriage therapists, and school counselors can directly apply this finding in their therapeutic work with clients. Vocational identity may be facilitated through therapeutic interventions designed to assist young adult clients in individuating from a significant other and establishing more peer-like relationships with parents. Therapeutic techniques that assist clients in establishing healthy affective and cognitive boundaries between themselves and significant others and parents could be expected to have positive outcomes in terms of facilitating vocational identity. Counselors can facilitate the individuation process by encouraging young adults to identify feelings toward their significant other and their parents, assisting them in recognizing patterned ways of responding, and helping them to develop more effective ways of interacting, particularly during times of stress. Techniques such as the use of "I"-statements

and assertiveness training are examples of therapeutic techniques that could prove useful in this process.

Findings of Hypothesis 4

Hypothesis 4 stated that for college-aged adults family relationship dynamics will be related to career decision-making self-efficacy. Specifically, cohesion and expressiveness will be positively related and conflict will be negatively related to career decision-making self-efficacy. The results of hypothesis 4 indicate that family relationship dynamics predicted career decision-making self-efficacy in college-aged adults. Specifically, lower levels of conflict within the family of origin predicted higher levels of career decision-making self-efficacy in college-aged adults. Cohesion and expressiveness did not contribute to the prediction of career decision-making self-efficacy in these college-aged adults. In other words, young adults who reported less openly expressed anger and conflict in their family of origin were more likely to believe that they can successfully complete the tasks necessary to make career decisions. These findings of the negative role of conflict within the family of origin in young adult development are consistent with previous research in this area. Conflict has been found to be negatively related to adjustment to college (Lopez, Campbell, & Watkins (1988) and vocational identity (Blustein, Walbridge, Friedlander, & Palladino, 1991).

The lack of contribution of family cohesion and expressiveness is surprising because this hypothesis was based on previous research which found that a supportive family style (i.e., high expressiveness, high cohesion, and low conflict) facilitates some career development outcomes (Johnson et. al, 1998, Mallinckrodt, 1992). Johnson et. al

found the supportive family style to be associated with vocational identity while Mallinckrodt found the supportive family style to be associated with social self-efficacy. The present study failed to demonstrate a relationship between emotional expressiveness and cohesion and career decision-making self-efficacy. These family dynamics apparently do not impact the self-efficacy beliefs of young adults in the domain of career decision-making self-efficacy.

The present study did find that conflict in the family of origin has a negative relationship to young adults' self-efficacy beliefs in the domain of career decision-making. Openly expressed anger and hostility in the family is associated with poorer beliefs about one's ability to make decisions about career choices. It is possible that conflict generates internal barriers to self-efficacy in individuals who are exposed to high levels of openly expressed anger and hostility in their families of origin. One possible explanation for this is that conflict within in the family may often take the form of negative statements made to the individual about their decision-making which the person internalizes and generalizes to the domain of career decision-making. Conflict within the family of origin may give individuals the direct or implicit message that they are inept or incapable which has long-lasting impact of self-efficacy beliefs, particularly in the domain of career decision-making.

Taken together, the lack of support of the importance of cohesion and expressiveness and the support for the importance of the negative impact of conflict on career decision-making self-efficacy, point to a possible inhibitory effect of family dynamics on career decision-making self-efficacy. This indicates that potentially positive, facilitative effects of theoretically healthy family styles may not positively impact career

self-efficacy beliefs. However, detrimental family styles, such as a highly conflictual family style, may inhibit self-efficacy. Individuals may naturally develop self-efficacy beliefs as long as their development is not negatively impacted by some detrimental family influence, such as high conflict.

These findings have some clear implications for clinicians working with children, adolescents, young adults, families. Social workers, counselors, marriage therapists, family therapists, and career counselors can all apply the results of this finding to their clinical work. Although the positive impact of the supportive family style was not supported, the negative role of conflict in the family of origin on the development of career decision-making self-efficacy was supported by the results of the study. Clinicians who work with parents, families, children, and adolescents could potentially be expected to positively impact future development of career decision-making self-efficacy by addressing the way families manage conflict. When families require assistance in more positively managing conflict, counselors can use techniques such as anger management, conflict resolution, divorce mediation, and assertiveness training to assist families.

Findings of Hypothesis 5

Hypothesis 5 stated that for college-aged adults family organizational forces will be related to career decision-making self-efficacy. Specifically, high levels of organization and high levels of control were predicted to be positively related to career decision-making self-efficacy. The results of hypothesis 5 indicate that family organizational forces, organization and control, do not predict career decision-making self-efficacy. In fact, there was practically no relationship between the family organizational forces and career

decision-making self-efficacy. Therefore, the present study does not support the notion that forces which organize families and provide the context of family interaction relate to the formation of career decision-making self-efficacy.

This indicates that self-efficacy beliefs are neither impeded nor facilitated by the system maintenance dimension of family functioning. No particular style of organization, planning, and rule-governance in family life is associated with career decision-making self-efficacy beliefs. According to Bandura (1986) these beliefs are formed in part in response to one's interaction with the environment, including the family environment. The system maintenance dimensions are, admittedly, rather distal forces acting upon self-efficacy beliefs. Theoretically, this hypothesis is examining forces which do not act directly upon the individual. These forces form part of the context in which family interaction occurs rather than directly being a measure of the interaction itself. The results of this hypothesis may indicate that these forces are too distal to have a measurable impact on self-efficacy beliefs in the domain measured. The lack of support for an impact of the system maintenance dimension indicates that, perhaps, the actual events within the family, rather than the level of organization and planning and importance of rules within the home, impact self-efficacy beliefs.

These findings have some limited implications for the field. Although a lack of significant findings cannot lead to the conclusion that family organizational forces (i.e., organization and control) absolutely do not contribute to the development of career decision-making self-efficacy beliefs, the present study suggests that these forces may not directly impact these beliefs. The results of this hypothesis have implications for clinicians

working with families and for career counselors. Clinicians seeking to impact career self-efficacy beliefs may not concern themselves with families' styles of organization, planning, and rule-governance and, perhaps, instead should focus on forces which have a more direct impact on self-efficacy beliefs such as actual events in the home or in the client's environment.

Findings of Hypothesis 6

Hypothesis 6 stated that for college-aged adults personal authority in the family system will be related to career decision-making self-efficacy. Although no predictions were made concerning the relationship between specific developmental tasks in the establishment of personal authority and career decision-making self-efficacy, the set or a subset of personal authority tasks (i.e., intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation) was predicted to be positively related to the attainment of career decision-making self-efficacy. The results of hypothesis 6 indicate that attainment of two of the developmental tasks of young adulthood involved in the establishment of personal authority in the family system predicted career decision-making self-efficacy in college-aged adults. Specifically, peer individuation and intergenerational intimidation were positively related to career decision-making self-efficacy.

These findings indicate that the degree of individuation with a significant other and the degree of intimidation by parents (i.e., the inability to be assertive with parents resulting in changing one's behavior to be in line with parental expectations) were moderately related

to the belief that one can successfully complete the tasks necessary to make career decisions. These findings highlight the importance of developmentally mature boundaries with peers and parents in the development of self-efficacy beliefs. Both distinct boundaries between self and a significant other and parents contribute to self-efficacy beliefs. It is possible that assertiveness with parents contributes to self-efficacy beliefs. An atmosphere between parents and their adult children that allows for maintaining a distinct sense of self facilitates individuals in not creating internal barriers which impede self-efficacy beliefs.

The findings that intergenerational intimidation and peer individuation have an impact on career decision-making self-efficacy beliefs have some readily apparent implications for career counselors, family therapists, and marriage counselors working with families and young adult couples. Family therapists can foster the development of career decision-making self-efficacy beliefs in children and adolescents by encouraging parents to allow children to develop their own goals and be appropriately assertive with parents, thereby limiting intergenerational intimidation. Career counselors and marriage therapists can assist clients in promoting career decision-making self-efficacy through encouraging each partner in a relationship to individuate. This means that each partner is encouraged to set their own goals, share their own beliefs and thoughts, and take responsibility for these while maintaining intimate contact with each other. Clinicians assisting clients work through these developmental tasks would be expected to promote the development of career decision-making self-efficacy.

Findings of Hypothesis 7

Hypothesis 7 states that personal authority will be negatively related to dysfunctional career thoughts. Specifically, the set or a subset of the personal authority in the family system developmental tasks (i.e., intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation) will be negatively related to the set or a subset of dysfunctional career thoughts (i.e., decision-making confusion, commitment anxiety, and external conflict). The results of hypothesis 7 indicate that some elements of personal authority in the family system are negatively related to dysfunctional career thoughts. A combination of dysfunctional career thoughts (i.e., external conflict, decision-making confusion, and commitment anxiety) were related to a combination of personal authority in the family system tasks (i.e., intergenerational individuation, intergenerational intimidation, intergenerational triangulation, and peer individuation). One of the three types of dysfunctional career thoughts, External Conflict, was negatively related to attainment of personal authority in the family system. Difficulty initiating the decision-making process due to the inability to balance one's own perceptions with the importance of input from others was negatively related to the attainment of personal authority tasks. The present study suggests that college students who have achieved greater attainment of the developmental tasks of young adulthood are better able to balance their own perceptions as well as those of others in the decision making process. The variate of developmental tasks corresponding with less dysfunctional career thoughts was primarily composed of individuation with both peers and parents, lack of involvement in conflicts between parents,

and the ability to be assertive with parents (i.e., peer individuation, intergenerational individuation, intergenerational triangulation, and intergenerational intimidation).

These results support the extension of Bowenian developmental tasks into the area of career counseling. Theoretically, these developmental tasks essentially are tasks of establishing interpersonal boundaries between the self and significant others both within one's generation (e.g., with a spouse) and across generations (e.g., with parents) which allow closeness (i.e., intimacy) without any loss of sense of self (i.e., individuation). Not changing one's behavior to meet parental expectations (i.e., intimidation) and lack of involvement in parental conflict (i.e., triangulation) are also associated with increased functionality of career-related cognition. Career cognition is demonstrated by the present study to be clearly more functional in terms of clarity of thinking when greater attainment of these developmental tasks has been achieved.

The implications of the findings of this hypothesis for family therapy and career counseling are clear and direct. It would be expected that the better able counselors are to promote the development of these tasks of young adulthood in clients, the more functional their career-related thoughts, particularly cognition in the area of balancing their perceptions and goals with those of important people in their lives. Promoting individuation with parents and a significant other were the most important tasks and should be encouraged through therapeutic intervention. Counselors can assist clients in these developmental goals through assisting clients in recognizing their feelings, thoughts, and goals; recognizing patterned ways of reacting; and using more effective ways of responding to parents and significant others. The developmental tasks of becoming appropriately

assertive with parents and not becoming involved in conflict between parents (i.e., intergenerational intimidation and intergenerational triangulation) were also important tasks related to the functional quality of career-related thoughts. Facilitating appropriate boundaries between young adults and parents, particularly when parents are in conflict, and assisting clients in becoming increasingly assertive parents may facilitate increasing the functional quality of career related cognition. The particular area of career-related cognition most related to these developmental tasks was that of external conflict, that is, difficulty initiating the decision-making process due to the inability to balance one's own perceptions with the importance of input from others. It can be concluded from the results of this hypothesis that facilitating better interpersonal boundaries between self and significant others (i.e., parents and a significant other) through the counseling process may decrease the degree of inhibition of the career decision process through decreasing perceived external conflict.

Findings of Hypothesis 8

Hypothesis 8 stated that, although the impact of family dynamics on the content of career-related cognitions has not previously been investigated, it is hypothesized that low cohesion and expressiveness and high conflict will be related to dysfunctional career thoughts (i.e., decision-making confusion, commitment anxiety, and external conflict). The results of hypothesis 8 indicate that some family dynamics are related to dysfunctional career thoughts in college-aged adults. A single family dynamic, conflict, was positively related to a combination of dysfunctional career thoughts (i.e., external conflict, decision-making confusion, and commitment anxiety). Conflict in the family of origin was

positively related to all three categories of dysfunctional career thoughts. Difficulty initiating the decision making process due to disabling emotions, anxiety perpetuating career indecision, and the inability to balance one's own perceptions with the importance of input from others were all related to conflict in the family of origin. The present study suggests that young adults who characterize their family of origin as having less family conflict are better able to manage their emotions, anxiety, and balance their own perceptions as well as those of others in the career decision-making process.

These results support the negative role of family conflict in the career development of young adults. These results are consistent with previous findings in the literature which have reported on the positive relationship between conflictual independence and adjustment of young adults to college (Lopez, Campbell, & Watkins (1988). Previous research has also found that conflict plays a role in the career development of young adults. Blustein, Walbridge, Friedlander, and Palladino (1991) found conflict to be negatively related to vocational identity.

Interestingly, these findings do not support the positive benefit of the supportive family style described by Bray, Williamson, and Malone (1984a). The supportive family style would have been supported by findings of high expressiveness, high cohesion, and low conflict being related to the absence of dysfunctional career thoughts. However, the present study does not support the importance of cohesion and expressiveness in the family of origin in the career development of young adults. Perhaps these developmental tasks occur so naturally in college students in this culture that they will inevitably occur unless their attainment is blocked a harmful family style. It could be the case that they occur so

naturally that they practically cannot be facilitated by healthy or more positive family styles but can be hindered by detrimental family styles.

The implications of the findings of this hypothesis are quite clear. These findings highlight the importance of family therapists, social workers, career counselors, and school counselors working to intervene with families experiencing high levels of conflict. Disabling emotions, anxiety, and conflict between one's own goals and those of others all impede the career decision-making process and are all associated with conflict in the family of origin. Psychotherapeutic intervention in families characterized by high levels of openly expressed anger and hostility should be designed to assist families in learning to manage this conflict. Examples of possible interventions include divorce mediation, conflict resolution training, and assertiveness training. The results of this hypothesis imply that the greater a family is able to manage conflict, the better the overall functional quality of career thoughts of the children in the home.

General Discussion

The single most significant finding of the present study is that it clearly supports the extension of Bowen family systems theory and Williamson's theory of personal authority into the realm of career development. Family dynamics and the developmental tasks of young adulthood described by Williamson impact the career development outcomes of vocational identity, career decision-making self-efficacy, and dysfunctional career thoughts. The process of individuation from the family of origin, separation from parents while maintaining intimacy, are related to all three career development outcomes while family

dynamics, particularly family conflict, are related to career decision-making self-efficacy and dysfunctional career thoughts.

Family dynamics were related to two of the three career development outcomes; career decision-making self-efficacy and dysfunctional career thoughts. Specifically, conflict was associated with both outcomes. Consistent with previous research indicating that family conflict is related to the career decision-making process (Blustein, Walbridge, Friedlander, and Palladino, 1991), conflict was found to be negatively related to career decision-making self-efficacy. However, expressiveness and cohesion were not associated with self-efficacy. Taken together, this could indicate that conflict within the family of origin generates internal barriers to self-efficacy in individuals who are exposed to high levels of openly expressed anger and hostility. Conflict within families might take the form of a punitive parenting style or of negative statements directed toward children. This could implicitly teach children to question their own decision-making, creating an internal barrier to self-efficacy that might generalize to the domain of career decision-making. Conflict in the family may directly or indirectly give young adults the message that their decision-making is not to be trusted, which could have a detrimental impact on their self-efficacy beliefs in the area of career decision-making. To speculate further, it is also possible that the development of career decision-making self-efficacy beliefs is so organic or innate during the college years that it cannot be facilitated by healthy or positive family styles, such as the supportive family style, which would account for the lack of impact of expressiveness and cohesion. However the findings in the present study support the notion

that detrimental family styles, such as the highly conflictual family, can inhibit these self-efficacy beliefs.

Conflict was also the most salient of the three family dynamics in relationship to dysfunctional career thoughts. The present study found conflict to be positively related to dysfunctional career thoughts while cohesion and expressiveness showed no association with dysfunctional career thoughts. These findings support previous research which highlighted the positive effect of low levels of family conflict in the career development of young adults. For example, Kenny (1990) and Lopez, Campbell, Watkins (1988) both found a relationship between parent-child conflict and young adults' adjustment to college. Conflict within the family of origin is associated with all three types of dysfunctional career thoughts while cohesion and expressiveness had no such relationship. Difficulty making career decisions as a result of disabling emotions, commitment anxiety, and an inability to balance self-perceptions with input from significant others are all associated with conflict within the family of origin. Conflict in the family of origin apparently has long-lasting impact on the decision-making ability of college students through affective mechanisms, that is, by generating emotional turmoil and anxiety as well as difficulty taking responsibility for decision-making in light of input from significant others.

The lack of association between cohesion and expressiveness with dysfunctional career thoughts is not particularly surprising in light of the following. The instrument used to measure dysfunctional career thoughts, the Career Thoughts Inventory (Sampson et al., 1994) is a measure of the degree of dysfunctional career thinking. It measures the degree of problematic thinking from no dysfunction to extreme dysfunction. However, the absence

of dysfunction is not the end of the continuum of functionality of career thinking. The degree of positive functionality of career thinking is simply not assessed by the scale. The scale does not provide any means of measuring the degree of positive functionality of thinking in the absence of dysfunction. It is likely that, in addition to the absence of dysfunctional thinking, thoughts can also be increasingly functional, which the scale does not measure. Therefore, there is a ceiling built into the CTI. It measures dysfunction but does not measure the quality of career thoughts in the functional range. If expressiveness and cohesion impact the quality of career decision-making thoughts, they would be expected to improve the quality of already functional career thoughts, even though the data does not show that they mediate career thoughts in the dysfunctional range. Further research is needed to clarify this hypothesized relationship.

The lack of finding the hypothesized relationship between family dynamics and vocational identity was rather surprising, particularly given that this hypothesis was a replication of previous research (Johnson, Buboltz, & Nichols, 1998) which found a supportive family style (i.e., high family cohesion, high expressiveness, and low conflict) to be positively related to the attainment of vocational identity. The instruments used to measure family dynamics and vocational identity were identical in the Johnson et. al study and in the present study. The lack of findings of a relationship between conflict, in particular, and vocational identity is surprising because this is inconsistent with previous reports in the literature which have found a negative relationship between parent-child conflict and vocational identity (Blustein, Walbridge, Friedlander, & Palladino, 1991; Johnson, Buboltz, & Nichols, 1998; Lopez, Campbell, & Watkins, 1988). One possible

explanation for the lack of replication is demographic differences between the samples in the two studies. While Johnson et al.'s sample was comprised of over three-fourths women of primarily Anglo American and Hispanic backgrounds and was obtained from a Southwestern university, the sample in the present study was fairly even split between men and women of predominantly Anglo Americans with African Americans making up the largest minority group (15%) and was obtained from a Southern university. It is possible that gender and cultural differences in family dynamics account for the disparate results of the two studies. For example, the vocational identity of Anglo American and Hispanics at a Southwestern university may be formed in large part within the family of origin, leading to the supportive family style having a significant impact on vocational identity, whereas the vocational identity of a predominantly Anglo Americans and African Americans at a Southern university may be formed in large part through extrafamilial influences, such as peer groups, leading to the lack of a significant relationship between family dynamics and vocational identity in the present study. This would account for the lack of replication of the previous study.

The present study consistently failed to demonstrate the hypothesized relationship between family organizational forces and the career development of college-aged adults. These hypotheses were considered speculative in the present study. The organizational forces of control and organization did not predict either vocational identity or career decision-making self-efficacy. In fact, the relationship of these family organizational forces with vocational identity and career decision-making self-efficacy was practically nonexistent. One possible explanation for this lack of support is the attenuation of the true

correlation of these variables due to only moderate reliability of the scales used to measure organization and control ($r = .69$ and $r = .70$). However, it is more probable that these phenomena simply do not impact the career outcome variables as hypothesized. No particular style of organization, planning, organization, and rule-governance in family life is associated with the career outcomes measured. These organizational styles are, admittedly, ways in which families organize their interaction rather than measuring actual interaction among family members. These organizational forces are therefore, rather distal to the career outcomes being measured. Both self-efficacy theory and Holland's theory of vocational identity provide the family origin as one environmental factor influencing these outcomes. The present study supports the notion that family dynamics which directly impact the individual rather than organizational style of family impact career development outcomes.

Finally, differentiation as operationalized in Williamson's seven developmental tasks of young adulthood is consistently related to all three career development outcomes. Differentiation was positively related to vocational identity and career decision-making self-efficacy and negatively related to dysfunctional career thoughts. The seven developmental tasks described by Williamson (1981, 1982a, 1982b) are operationalized as a pattern of abilities

(1) to order and direct one's own thoughts and opinions; (2) to choose to express or not express one's own thoughts and opinions regardless of social pressures; (3) to make and respect one's personal judgements, to the point of regarding these judgements as justification for action; (4) to take responsibility for the totality of one's experience in life; (5) to initiate or to receive (or to decline to receive) intimacy voluntarily, in conjunction with the ability to establish clear boundaries to self--at will; (6) to experience and relate to all other persons without exception,

including “former parents”, as peers in the experience of being human (Williamson, 1982b, p. 311).

These behaviors and abilities are described as the ability to regulate intimacy, interpersonal distance (i.e., differentiation, fusion, and isolation), and conflict between oneself and significant others, namely one’s parents and one’s spouse. These interpersonal dynamics can readily be related to the career outcomes included in the present study.

The current study supports the theoretical connection between attainment of these developmental tasks and the positive attainment of career decision-making self-efficacy, vocational identity, and dysfunctional career thoughts. Specifically, attainment of the developmental tasks of peer individuation was shown to predict each of these three outcomes. This indicates that individuation in relation to significant others, particularly a spouse, to be of particular importance. Young adults who are able to separate their thoughts, feelings, and actions from those of their significant other have fewer dysfunctional career thoughts, greater career decision-making self-efficacy, and increased vocational identity. Taken together, these results support the hypothesized positive impact of increased differentiation on the career development of young adults.

Implications

The primary purpose of the present study was to respond to calls in the literature for methodological improvement from previous research in order to extend the knowledge base in the area of the impact of the family of origin on the career development of young adults. In this regard by assessing the family unit as a whole, using multidimensional measures of family functioning, having an adequate theoretical basis for the inclusion of particular

measures of family dynamics, and measuring career outcomes which are logically tied to these theoretically derived family dynamics the study provided additional evidence of the relationship between the family of origin and career development outcome measures. Specifically, personal authority in the family system was found to be associated with vocational identity and career decision-making self-efficacy while conflict in the family of origin was associated with lower career decision-making self-efficacy, lower individuation from the family of origin, and greater levels of dysfunctional career thoughts.

Along with adding to the research base on this topic, the results of the present study have implications for counseling psychologists and other mental health professionals working with college-aged adults, children, adolescents, and families. For example, it appears that conflict within the family of origin may indeed have a detrimental effect on the development of career development of young adults. Although no causal relationships can be assumed from the present study, it may be the case that conflict within the family of origin has long-lasting consequences in terms of career development for these young adults. Specifically, conflict in the family of origin was associated with lower career decision-making self-efficacy, greater dysfunctional career thoughts, and lower individuation. These findings have wide-ranging implications for school counselors, mental health professionals working with children and adolescents, career counselors, and family therapists. Conflict in the present study was defined as “openly expressed anger and conflict among family members” (FES Moos & Moos, 1994, p. 1). Mental health professionals working with families and young adults can promote family dynamics which can facilitate career development of young adults and children within families. If the mental health professional

working with families with children and adolescents can assist families in learning to manage conflict without aggression, angry outbursts, and open hostility, children from these families may be better able to develop career self-efficacy beliefs and functional career thoughts and increase individuation. To this end a host of existing therapeutic modalities and techniques can be useful in working with families experiencing conflict. These include psychoeducation about conflict resolution techniques, family therapy, marital therapy, divorce mediation, and teaching the use of “I”-statements.

Counseling psychologists providing career counseling with college students in university counseling centers could assist their clients by working with them on managing and resolving conflict with their family of origin. According to Bowenian theory the means to manage conflict within the family and with significant others is through the process of differentiation. This process is essentially one of establishing internal and interpersonal boundaries which regulate emotional intensity between oneself and one’s family of origin. As discussed in Josselson (1987) mental health professionals can facilitate differentiation through encouraging young adults to identify their feelings toward their parents, recognizing their cyclical ways of reacting to their parents, and using more effective ways of relating to their parents. These more effective ways of relating assist one in maintaining intimacy with others while maintaining sufficient emotional distance to not become involved in conflict.

That some elements of personal authority in the family system may facilitate career development outcomes further supports the need for career counselors to assist their clients in differentiating from their family of origin and their peers. This points to the need to not

only assist career counseling clients with the tasks of differentiating from their parents but also from their significant others. This suggests the need to possibly include significant others in the career counseling process and possibly explicitly focus on the relationships of these clients in couples counseling to facilitate the career counseling process.

Counselors can facilitate the differentiation process by encouraging young adults to identify their feelings toward their parents and significant others, assisting them in recognizing patterns of responding, particularly when under stress, and the helping them develop more effective means of coping during these times. Therapeutic techniques designed to assist clients further their level of differentiation have been discussed in great detail in the literature (Bray, Williamson, & Malone, 1986; Haley, 1980; Williamson 1982a, 1982b).

The present study may have other important implications for mental health professionals and social service agencies working with youth and families. This study highlights the impact of the quality of family interactions on an important area of development for young adults, career development. This indicates that there is a need to help families under stress to learn to manage this stress without open hostility and conflict. The need for community support and social service support is vital to assisting these families. Existing support structures such as parenting classes, family therapy, and psychoeducational courses on conflict resolution could all be useful interventions for at risk families.

Limitations

The most significant limitation of the present study is the lack of replication of some previous findings. Specifically, the impact of some family dynamics, expressiveness and cohesion, on vocational identity was not supported in the present study while they were previously found to impact this important career development outcome (Johnson, Buboltz, & Nichols, 1998). The Johnson et. al study and the present study were methodologically similar, using the same instrument (i.e., the Family Environment Scale) to measure these family dynamics. However, the proportion of male and female participants and the ethnic makeup of the two samples were quite different. It is possible that the moderate reliability of the expressiveness and cohesion subscales of the FES (i.e., .57 and .78, respectively) was responsible for the lack of replication. It is also possible that differences in the samples led to the lack of replication.

Another significant limitation of the present study is its limited applicability across cultures. The theories guiding the study, Bowen family systems theory (1978) and Williamson's intergenerational family systems theory (1981, 1982a, 1982b), are well established in Western psychological thought, however, their applicability in non-Western cultures and with non-Western samples has not been investigated. In fact the applicability of Bowen's theory to clients from non-Western cultures has been questioned on several grounds (Dodge, 1997). For example, Bowen and Williamson's principle concept of psychological well-being, differentiation, is a uniquely Western concept. Many cultures, such as many African and Asian cultures, tend to be collectivistic in nature, emphasizing group goals over personal goals, defining the self through the collective, and emphasizing

the needs of others (Triandis, 1989). These interpersonal dynamics, which are contrary to the psychologically healthy dynamics described by differentiation, are the norm in collectivistic societies and would be labeled as triangulation and intimidation by Bowen's theory. The application of these theories in psychotherapy also reflects their individualistic bias. Therapeutic techniques such as the use of "I"-statement are also Western in their origin and may be inappropriate in collectivistic cultures which value the collective self over the private self (Triandis). Bowen family systems theory would likely need major revision for application to individuals from non-Western cultures. Therefore this study, which is derived from Bowen and Williamson's work, should not be applied in non-Western cultures. However, as individuals become acculturated to Western society, their family dynamics would be expected to become increasingly like those of individualistic, Western culture. Therefore as families become increasingly acculturated these findings would be expected to become increasingly applicable to them. However, this supposition can only be confirmed empirically.

Another important limitation of the present study concerns its generalizability due to the characteristics of the obtained sample. The most important of these concerns the study utilizing only college students in the sample. The lack of non-college students limits the generalizability of the study to non-college student populations. Theoretically, lack of differentiation leads to difficulty separating from parents and the family of origin. Therefore, young adults with the least differentiation may not attend college and may be under represented in the present study. Another potential limitation based on the obtained sample concerns regional and cultural limitations to its generalizability. The sample was

obtained from a single Southern university. The ethnic breakdown of the sample is representative of the university from which it was obtained, however, some ethnic groups (e.g., Asian Americans) are under represented (i.e., none present). Therefore, due to expected cultural differences discussed earlier, caution should be used in generalizing to ethnic groups not represented or under represented in the present study.

Methodological limitations are also present in the present study. For example, due to the nature of family dynamics and their impact on young adults as well as the statistics used, causation cannot be determined in the relationships among the variables. It is certainly reasonable to assume that, since family dynamics impact development prior to career development, family dynamics are clearly influencing later career development. However, it is also possible that the family is influencing some moderating factor, such as cognitive development, which in turn influences the development of career outcomes such as self-efficacy beliefs. Therefore, statements concerning the relationships among the variables in this study are limited to statements of strength and direction of the relationships.

A final methodological limitation concerns the present study accounting for potential extraneous variables which could possibly attenuate the relationships among the variables under study. For example, family structure (i.e., single-parents families versus two-parents families) has been shown to impact the career development of young adults (Johnson, Buboltz, Nichols, 1998). However, it was beyond the scope of the present study to account for the potential impact of such variables, although doing so could possibly have further clarified the nature of the relationships among the variables under study.

Suggestions for Future Research

Along with adding to the literature base on the relationship between family of origin and career development of young adults and having implications for counselors, the results of the present study may have value in guiding future research in this area. First, the finding that family conflict and differentiation as measured by the seven developmental tasks impact career development indicates that future researchers should continue to examine the impact of the family of origin on the development of young adults. A potential avenue for future research would be to investigate the impact of family structure on career development, which was not examined by the present study.

A second recommendation for future research is to assess young adults who are not college students. By collecting data exclusively from college students, it is possible that the sample was truncated such that those young adults with the least attainment of some dimensions of differentiation were not represented in the study. Theoretically, those young adults who have extreme difficulty with the developmental tasks of differentiation would have the greatest difficulty leaving home both emotionally and physically, thereby being the least likely to be represented in the sample. These individuals would be less likely than others to attend college and have more difficulty staying at a college which may be far removed from their parents' home. Assessment of non-college students along with college students would allow for a better examination of the impact of the dimensions of differentiation on the career development of young adults.

By collecting data exclusively from college students the variability in the sample may be reduced in other important ways. This truncation may have impacted important

predictors such as the family organizational forces and some elements of family dynamics. Relationships between these variables and the measured career outcomes may be revealed if a sample with greater variability is obtained. Therefore, future researchers will want to collect data from young adults in the community as well as from the college.

A third recommendation for future research relates to the assessment instruments currently available to assess family dynamics and family organizational forces. The Family Environment Scale is among the most frequently used instruments in this area. However, the obtained reliability estimates (i.e., Cronbach's alpha) of the FES subscales used in current study range from .57 to .78, which is not particularly impressive. Further research is needed in order to construct more psychometrically sound instruments or refine extant instruments with which to assess family dynamics.

A fourth recommendation for further research relates to the ethnic breakdown of the sample. The functional utility of family dynamics is expected to be vary across cultures. Future studies could obtain large samples of major ethnic groups in order to examine potential differential impact of family dynamics on career development by ethnic group. In such future studies it would also be of theoretical interest to investigate whether differentiation plays a functional role in the career development of individuals from non-Western cultures. Further acculturation studies could also investigate how family dynamics change as non-Western families become acculturated into Western society.

APPENDIX A

HUMAN USE COMMITTEE APPROVAL



LOUISIANA TECH
UNIVERSITY

RESEARCH & GRADUATE SCHOOL

MEMORANDUM

TO: Tim Dodge
Dr. Walter Buboltz

FROM: Deby Hamm, Graduate School

SUBJECT: HUMAN USE COMMITTEE REVIEW

DATE: August 11, 1998

In order to facilitate your project, an **EXPEDITED REVIEW** has been done for your proposed study entitled:

"The relationship between family of origin and career thoughts, career identity, and career decision-making self efficacy"

Proposal # 1-NG

The proposed study procedures were found to provide reasonable and adequate safeguards against possible risks involving human subjects. The information to be collected may be personal in nature or implication. Therefore, diligent care needs to be taken to protect the privacy of the participants and to assure that the data are kept confidential. Further, the subjects must be informed that their participation is voluntary.

Since your reviewed project appears to do no damage to the participants, the Human Use Committee grants approval of the involvement of human subjects as outlined.

You are requested to maintain written records of your procedures, data collected, and subjects involved. These records will need to be available upon request during the conduct of the study and retained by the university for three years after the conclusion of the study.

If you have any questions, please give me a call at 257-2924.

Your Research Proposal is approved with the corrections marked on the copy attached.

A MEMBER OF THE UNIVERSITY OF LOUISIANA SYSTEM

P.O. BOX 7923 • RUSTON, LA 71272-0029 • TELEPHONE (318) 257-2924 • FAX (318) 257-4487 • email: research@LaTech.edu
AN EQUAL OPPORTUNITY UNIVERSITY

APPENDIX B

DEMOGRAPHIC QUESTIONS

INSTRUCTIONS: Please provide the following information.

Age: Darken the FOURTH and FIFTH columns in the social security number section with your age. If you are 19, darken a 1 the FORTH column and a 9 in the FIFTH column.

Timing of parental divorce: If your parents are married and have never divorced, darken two 0's in the SIXTH and SEVENTH columns in the social security number section. If your parents are divorced, indicate the number of years ago that your parents got divorced in the SIXTH and SEVENTH columns. For example, if your parents got divorced 5 years ago, darken the 0 in SIXTH column and the 5 in SEVENTH column.

Frequency of contact with noncustodial parent: If your parents are married and have never been divorced, darken two 0's in the EIGHTH and NINTH columns of the social security number section. If your parents are divorced, indicate how often you had contact (letters, phone, in-person, etc.) with your noncustodial parent (the parent who you lived with the least) over the past year. Each day counts as 1 contact. For example, if you lived with your noncustodial parent for one week and called him/her on 2 other occasions over the past year, you had 9 total contacts. In this case, darken the 0 in the EIGHTH column and the 9 on the NINTH column.

1. **Gender:** Enter the letter that corresponds to your gender.
 a. female b. male.

2. **Ethnicity:** Enter the letter corresponds to the ethnic group with which you most identify, according the list below. If that group is not listed please leave this question blank.

- a. Anglo-American, white, not of Hispanic origin
- b. Hispanic/Latino
- c. African-American/Black
- d. Native American
- e. Asian-American

3. **Class standing:** Enter the letter that corresponds to your class standing, according to the list below.

- a. Freshman
- b. Sophomore
- c. Junior
- d. Senior

4. **Parents marital status:** Enter the letter that corresponds to your parents marital status.

- a. Your parents are married. They have never been divorced.
- b. Your parents are divorced. The parent with whom you lived most while growing up has *never remarried*.
- c. Your parents are divorced. The parent with whom you lived most while growing up has *remarried one or more times*

APPENDIX C

PARTICIPANTS CONSENT FORM

The following is a brief summary of the project in which you are being asked to participate. Please read this information before signing the statement below.

TITLE: The Impact of Family of Origin on Career Identity, Career Decision-Making Self-Efficacy, and Career Thoughts

PURPOSE: To examine the impact of family dynamics on the development of career identity, career decision-making self-efficacy, and the quality of career thoughts.

PROCEDURES: Completion of the survey packet

INSTRUMENTS: Demographics Questionnaire, Career Decision-Making Self-Efficacy Scale-short form, Career Thoughts Inventory, Family Environment Scale, My Vocational Situation, and Personal Authority in the Family System Questionnaire-College Student Version

RISKS/ALTERNATIVE TREATMENTS: none

BENEFITS/COMPENSATION: none

I attest with my signature on the attached page that I have read and understood the following description of the study, "The Impact of Family of Origin on Career Identity, Career Decision-Making Self-Efficacy, and Career Thoughts", and its purposes and methods. I understand that my participation in this research is strictly voluntary and my participation or refusal to participate in this study will not affect my relationship with Louisiana Tech University or my grades in any way. Further, I understand that I may withdraw at any time or refuse to answer any questions without penalty. Upon completion of the study, I understand that the results will be freely available to me upon my request. I understand that the results of my survey will be anonymous and confidential, accessible only to the principal investigators, myself, or a legally appointed representative. I have not been requested to waive nor do I waive any of my rights related to participation in this study.

CONTACT INFORMATION: The principal experimenters listed below may be reached to answer questions about the research, participants' rights, or related matters:

Dr. Walter C. Buboltz, Jr.	257-2449
Tim Dodge	254-8563

The Human Subjects Committee of Louisiana Tech University may also be contacted if a problem cannot be discussed with the experimenters:

Dr. Mary Livingston	257-4315
Dr. Terry McConathy	257-2924

REFERENCES

- Adler, A. (1938). Social interest: A challenge to mankind. London: Faber & Faber.
- Ainsworth, M. (1989). Attachments beyond intimacy. American Psychologist, 44, 709-716.
- American Psychological Association (1992). Ethical Principles of Psychologists and Code of Conduct. American Psychologist, 42 (12), 1597-1611.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall.
- Beck, A. T. (1976). Cognitive therapy and emotional disorders. New York: International Universities Press.
- Beck, A. T., Emery, G., & Greenberg, R. L. (1985). Anxiety disorders and phobias: A cognitive perspective. New York: Guilford.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). Cognitive therapy of depression. New York: Guilford.
- Bell, N. J., Avery, A. W., Jenkins, D., Feld, J., & Schoenrock, C. J. (1985). Family relationships and social competency during late adolescence. Journal of Youth and Adolescence, 14, 109-119.
- Bergeron, L. M., & Romano, J. L. (1994). The relationships among career decision-making self-efficacy, educational indecision, vocational indecision, and gender. Journal of College Student Development, 35 (1), 19-24.
- Betz, N. E., Klein, K. L., & Taylor, K. M. (1996). Evaluation of a short form of the Career Decision-Making Self-Efficacy scale. Journal of Career Assessment, 4 (1), 46-57.
- Betz, N. E., Luzzo, D. A. (1996). Career assessment and the Career Decision-Making Self-Efficacy Scale. Journal of Career Assessment, 4 (4), 413-428.
- Betz, N. E., & Taylor, K. M. (1994). Manual for the Career Decision-Making Self-Efficacy scale. Unpublished manuscript, Ohio State University at Columbus.

Betz, N. E., & Vuyten, K. K. (1997). Efficacy and outcome expectations influence career exploration and decidedness. Career Development Quarterly, 46 (2), 179-189.

Blinne, W. R., & Johnston, J. A. (1998). Assessing the relationships between vocational identity, academic achievement, and persistence in college. Journal of College Student Development, 39 (6), 569-576.

Bloor, D., & Brook, J. (1993). Career development of students pursuing higher education. New Zealand Journal of Educational Studies, 28 (1), 57-68.

Blos, P. (1979). The adolescent passage: Developmental issues. New York: International University Press.

Blustein, D. L. (1989). The role of goal instability and career self-efficacy in the career exploration process. Journal of Vocational Behavior, 35 (2), 194-203.

Blustein, D. L., Walbridge, M. M., Friedlander, M. L., & Palladino, D. E. (1991). Contributions of psychological separation and parental attachment to the career development process. Journal of Counseling Psychology, 38 (1), 160-168.

Bowen, M. (1978). Family therapy in clinical practice. New York: Jason Aronson.

Bowlby, J. (1982). Attachment and loss: Volume I. Attachment (2nd ed.). New York: Basic Books.

Bray, J. H., & Harvey, D. M. (1992). Intimacy and individuation in young adults: Development of the young adult version of the Personal Authority in the Family System Questionnaire. Journal of Family Psychology, 6, 152-163.

Bray, J. H., Harvey, D. M., & Williamson, D. S. (1987). Intergenerational family relationships: An evaluation of theory and measurement. Psychotherapy, 24, 516-528.

Bray, J. H., Williamson, D. S., & Malone, P. E. (1984a). Manual for the Personal Authority in the Family System Questionnaire. Houston, TX: Houston Family Institute.

Bray, J. H., Williamson, D. S., & Malone, P. E. (1984b). Personal authority in the family system: Development of a questionnaire to measure personal authority in intergenerational family process. Journal of Marital and Family Therapy, 10, 167-178.

Bray, J. H., Williamson, D. S., & Malone, P. E. (1986). An evaluation of an intergenerational consultation process to increase personal authority in the family system. Family Process, 25, 423-435.

Brown, C. T., Yelsma, P., & Keller, P. W. (1981). Communication/conflict

predisposition: Development of a theory and an instrument. Human Relations, 34, 1103-1117.

Crites, J. O. (1978). Career Maturity Inventory. Monterey, CA: McGraw-Hill.

Dipeolu, A. O. (1998). A study of the relationship between learning disabilities, dysfunctional career thoughts, and adjustment to disability. Dissertation Abstracts International, 58 (7-B): 3938.

Dodge, T. D. (1997). An examination of the cross-cultural applicability of Bowen family systems theory. Unpublished manuscript, Louisiana Tech University.

Eigen, C. A., Hartman, B. W., & Hartman, P. T. (1987). Relations between family interaction patterns and career indecision. Psychological Reports, 60, 87-94.

Erikson, E. (1968). Identity: Youth and crisis. New York: Norton.

Fiese, B. H., & Kline, C. A. (1993). Development of the Family Ritual Questionnaire: Initial reliability and validation studies. Journal of Family Psychology, 6, 290-299.

Finkelstein, M. J., & Gaier, E. L. (1983). The impact of prolonged student status on late adolescent development. Adolescence, 18 (69), 115-129.

Gelbert, K., Timberlake, D., & Wagner, B. (1992). The relationship between vocational identity and academic achievement. Journal of College Student Development, 33 (2), 143-148.

Haley, J. (1976). Problem-solving therapy. San Francisco: Jossey-Bass.

Haley, J. (1980). Leaving home: Therapy with disturbed young people. New York: McGraw-Hill.

Haley, J. (1996). Teaching and learning therapy. New York: Guilford.

Havinghurst, R. J. (1964). Youth in exploration and man emergent. In H. Borow (Ed.), Man in a world at work (pp. 215-236). Boston: Houghton Mifflin.

Hird, J. S. (1995). The relationship of sources of efficacy information to career decision-making self-efficacy. Dissertation Abstracts International, 56 (6-A): 2173.

Holland, J. L. (1992). Making vocational choices: A theory of vocational personalities and work environments (2nd ed.). Odessa, FL: Psychological Assessment Resources.

Holland, J. L., Daiger, D. C., & Power, P. G. (1980). My vocational situation. Palo Alto, CA: Consulting Psychologists Press.

Johnson, J. A. (1987). Influence of adolescent social crowds on the development of vocational identity. Journal of Vocational Behavior, 31 (2), 182-199.

Johnson, P. F, Buboltz, W. C., Jr., & Nichols, C. N. (1998). Parental divorce, family functioning, and vocational identity of college students. Manuscript submitted for publication.

Josselson, R. (1987). Finding herself: Pathways to identity development in women. San Francisco: Jossey-Bass.

Jowdy, D. P. (1995). The influence of family structure, separation from parents, and ego identity formation on career identity development and career exploration. Dissertation Abstracts International, 55 (10-B): 4606.

Katz, P. (1997). Adolescence, authority, and change. In L. T. Flaherty & H. A. Horowitz (Eds.), Adolescent psychiatry, Vol. 21: Developmental and clinical studies. Annals of the American Society for Adolescent Psychiatry (Vol. 21, pp. 49-65). Hillsdale, NJ: The Analytic Press, Inc.

Kenny, M. E. (1987). The extent and function of parental attachment among first-year college students. Journal of Youth and Adolescence, 16, 17-27.

Kenny, M. E. (1990). College seniors' perceptions of parental attachments: The value and stability of family ties. Journal of College Student Development, 31, 39-46.

Kenny, M. E., & Donaldson, G. A. (1991). Contributions of parental attachment and family structure to the social and psychological functioning of first-year college students. Journal of Counseling Psychology, 38, 479-486.

Kerr, M.E., & Bowen, M. (1988). Family evaluation: An approach based on Bowen theory. New York: W.W. Norton & Company.

Kilk, K. L. (1998). The relationship between dysfunctional career thoughts and choosing an academic major. Dissertation Abstracts International, 58 (8-A): 3038.

Kinnier, R. T., Brigman, S. L., & Noble, F. C. (1990). Career indecision and family enmeshment. Journal of Counseling and Development, 68, 309-312.

Kornspan, A. S. (1998). The relationship of demographic and psychological variables to career maturity of junior college student-athletes. Dissertation Abstracts International, 58 (12-A): 4568.

Kraus, L. J., & Hughey, K. F. (1999). The impact of an intervention on career decision-making self-efficacy and career indecision. Professional School Counseling, 2 (5), 384-390.

Lopez, F. G. (1989). Current family dynamics, trait anxiety, and academic adjustment: Test of a family-based model of vocational identity. Journal of Vocational Behavior, 35 (1), 76-87.

Lopez, F. G., & Andrews, S. (1987). Career indecision: A family systems perspective. Journal of Counseling and Development, 65, 304-307.

Lopez, F. G., Campbell, V. L., & Watkins, C. E. (1988). Family structure, psychological separation, and college adjustment: A canonical analysis and cross-validation. Journal of Counseling Psychology, 35, 402-409.

Lucas, E. B., Gysbers, N. C., Buescher, K. L., & Heppner, P. P. (1989). My Vocational Situation: Normative, psychometric, and comparative data. Measurement and Evaluation in Counseling and Development, 20 (4), 162-170.

Luzzo, D. A. (1993). Value of career decision-making self-efficacy in predicting career decision-making attitudes and skills. Journal of Counseling Psychology, 40 (2), 194-199.

Luzzo D. A., (1995). The relative contributions of self-efficacy and locus of control to the prediction of career maturity. Journal of College Student Development, 36 (1), 61-66.

Mallinckrodt, B. (1992). Childhood emotional bonds with parents, development of adult social competencies, and availability of social support. Journal of Counseling Psychology, 39(4), 453-461.

Mathieu, P. S., Sowa, C. J., & Niles, S. G. (1993). Differences in career self-efficacy among women. Journal of Career Development, 19 (3), 187-196.

McAuliffe, G. J. (1992). Assessing and changing career decision-making self-efficacy expectations. Journal of Career Development, 19 (1), 25-36.

Minuchin, S. (1974). Families & family therapy. Cambridge, MA: Harvard University Press.

Moos, R. H., & Moos, B. S. (1994). Family Environment Scale manual: Development, applications, research (3rd ed.). Palo Alto, CA: Consulting Psychologist Press.

Munson, W. W. (1992). Self-esteem, vocational identity, and career salience in high

school students. Career Development Quarterly, 40 (4), 361-368.

Nevill, D. D., Neimeyer, G. J., Probert, B., & Fukuyama, M. (1986). Cognitive structures in vocational information processing and decision making. Journal of Vocational Behavior, 28 (2), 110-122.

O'Brien, K. M. (1996). The influence of psychological separation and parental attachment on the career development of adolescent women. Journal of Vocational Behavior, 48, 257-274.

Olson, D. H., Bell, R., & Portner, J. (1978). FACES-I: Family adaptability and cohesion evaluation scales. Family Social Science, University of Minnesota.

Olson, D. H., Portner, J., & Bell, R. (1982). FACES-II: Family adaptability and cohesion evaluation scales. Family Social Science, University of Minnesota.

Osborn, D. S. (1999). The relationships among perfectionism, dysfunctional career thoughts and career indecision. Dissertation Abstracts International, 59 (10-A): 3746.

Osipow, S. H. (1987). Manual for the Career Decision Scale. Odessa, FL: Psychological Assessment Resources.

Papero, D. V. (1990). Bowen family systems theory. Needham Heights, MA: Allyn & Bacon.

Penick, N. I., & Jespen, D. A. (1992). Family functioning and adolescent career development. Career Development Quarterly, 40 (3), 208-222.

Peterson, G. W., Sampson, J. P., Jr., & Reardon, R. C. (1991). Career development and services: A cognitive approach. Pacific Grove, CA: Brooks/Cole.

Peterson, G. W., Sampson, J. P., Jr., Reardon, R. C., & Lenz, J. G. (1996). Becoming career problem solvers and decision makers: A cognitive information processing approach. In D. Brown & L. Brooks (Eds.), Career choice and development (3rd ed., pp. 423-475). San Francisco: Jossey-Bass.

Poe, R. E. (1991). Developmental changes in vocational identity among college students. Journal of College Student Development, 32 (3), 249-252.

Puffer, K. A. (1999). A study of collegians' family activities, roles, and interpersonal relations and their vocational identity, career choice commitment and decision making: An application of the developmental contextual framework. Dissertation Abstracts International, 59 (12-A): 4370.

Railey, M. G. (1997). The relationship between dysfunctional career thoughts and career interests with respect to offender status of female inmates and probationers. Dissertations Abstracts International, 58 (6-B): 3325.

Remer, P., O'Neill, C. D., & Gohs, D. E. (1984). Multiple outcome evaluation of a life-career development course. Journal of Counseling Psychology, 31 (4), 532-540.

Robbins, S. B. (1985). Validity estimates for the career decision-making self-efficacy scale. Measurement and Evaluation in Counseling and Development, 7, 64-71.

Robitschek, C, & Cook, S. W. (1999). The influence of personal growth initiative and coping styles on career exploration and vocational identity. Journal of Vocational Behavior, 54 (1), 127-141.

Roe, A. (1957). Early determinants of vocational choice. Journal of Counseling Psychology, 4, 212-217.

Rogers, C. R. (1951). Client-centered therapy: Its current practice, implications, and theory. Boston: Houghton Mifflin.

Rogers, C. R. (1961). On becoming a person: A therapists view of psychotherapy. Boston: Houghton Mifflin.

Sampson, J. P., Jr, Peterson, G. W., Lenz, J. G., Reardon, R. C., & Saunders, D. E. (1994). Career Thoughts Inventory: Professional manual. Odessa, FL: Psychological Assessment Resources, Inc.

Sandler, M. E. (1999). Career decision-making self-efficacy and an integrated model of student persistence in a continuing higher education adult degree program. Dissertation Abstracts International, 59 (9-A): 3372.

Sandler, I. N., & Barrera, M. (1984). Toward a multi-method approach to assessing the effects of social support. American Journal of Community Psychology, 12, 37-52.

Sarason, B. R., Shearin, E. N., Pierce, G. R., & Sarason, I. G. (1987). Interrelations of social support measures: Theoretical and practical implications. Journal of Personality and Social Psychology, 52, 813-832.

Saunders, D. E. (1998). The contribution of depression and dysfunctional career thinking to career indecision. Dissertation Abstracts International, 58, (7-B): 3953.

Saunders, D. E., Peterson, G. W., Sampson, J. P., Jr., & Reardon, R. C. (2000). Relation of depression and dysfunctional career thinking to career indecision. Journal of Vocational Behavior, 56 (2), 288-298.

Schaefer, M. T., & Olson, D. H. (1980). Assessing intimacy: The PAIR inventory. Journal of Marital and Family Therapy, 7, 47-60.

Schulenberg, J. E., Vondracek, F. W., & Crouter, A. C. (1984). The influence of the family on vocational development. Journal of Marriage & Family Therapy, 10, 129-143.

Skorikov, V. & Vondracek, F. W. (1998). Vocational identity development: Its relationship to other identity domains and to overall identity development. Journal of Career Assessment, 6 (1), 13-35.

Slatten, M. L. (1999). Dysfunctional career thoughts and self-appraised problem-solving ability among substance abusers. Dissertation Abstracts International, 60 (3-A): 0662.

Spokane, A. R. (1996). Holland's theory. In Career choice and development (3rd ed). Brown, D & Brooks, L. (Eds.) Jossey-Bass Inc.: San Francisco.

Strausberger, S. J. (1999). The relationship of state-trait anger to dysfunctional career thinking and vocational identity. Dissertation Abstracts International, 59 (10-A): 3747.

Super, D. E. (1957). The psychology of careers. New York: Harper & Row.

Super, D. E., Savikas, M. L., & Super, C. M. (1996). The life-span, life-space approach to careers. In D. Brown, L. Brooks, & associates (Eds.), Career development and choice (3rd ed., pp. 121-178). San Francisco: Jossey-Bass.

Super, D. E., Thompson, A. S., Lindeman, R. H., Jordaan, J. P., & Meyers, R. A. (1979). Career Development Inventory. Palo Alto, CA: Consulting Psychologist Press.

Tabachnick, B. G. & Fidell, L. S. (1989). Using Multivariate Statistics, Second Edition. New York: Harper Collins.

Taylor, K. M., & Betz, N. E. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision. Journal of Vocational Behavior, 22 (1), 63-81.

Taylor, K. M., & Popma, J. (1990a). An examination of the relationships among career decision-making self-efficacy, career salience, locus of control, and vocational indecision. Journal of Vocational Behavior, 37 (1), 17-31.

Taylor, K. M., & Popma, J. (1990b). Construct validity of the Career Decision-Making Self-Efficacy scale and the relationship of CDMSE to vocational indecision. Journal of Vocational Behavior, 37, 17-31.

Thomason, S. L., & Winer, J. L. (1994). Journal of Career Development, 21(1), 23-35.

Thompson, D. M. (1999). Graduating engineering seniors: A logistic regression analysis of their career expectations, and implications for the engineering pipeline. Dissertation Abstracts International, 59 (7-B): 3564.

Triandis, H. C. (1989). The self and social behavior in differing social contexts. Psychological Review, 96 (3), 506-520.

Ware, M. E. (1985). Assessing a career development course for upper-level college students. Journal of College Student Personnel, 26 (2), 152-155.

Whiston, S. C. (1996). The relationship among family interaction patterns and career indecision and career decision-making self-efficacy. Journal of Career Development, 23 (2), 137-149.

Williamson, D. S. (1981). Personal authority via termination of the intergenerational hierarchical boundary: A "new" stage in the family life cycle. Journal of Marital and family Therapy, 7, 441-452.

Williamson, D. S. (1982a). Personal authority in family experience via termination of the intergenerational hierarchical boundary: Part II. The consultation process and the therapeutic method. Journal of Marital and Family Therapy, 8, 23-38.

Williamson, D. S. (1982b). Personal authority in family experience via termination of the intergenerational hierarchical boundary: Part III. Personal authority defined and the power of play in change-process. Journal of Marital and Family Therapy, 8, 309-323.

Wulff, M. B., & Steitz, J. A. (1999). A path model of the relationship between career indecision, androgyny, self-efficacy and self-esteem. Perceptual and Motor Skills, 88 (3, Pt. 1), 935-940.

Zingaro, J. C. (1983). A family systems approach for the career counselor. Personnel and Guidance Journal, 62, 24-27.

VITA

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