

Family Interaction Patterns, Career Planning Attitudes, and Vocational Identity of High School Adolescents

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The purpose of the current study was to examine how perceptions of family interaction patterns as defined along three dimensions of family environment (quality of family relationships, family goal-orientations, and degree of organization and control within the family system) predict vocational identity and career planning attitudes among male and female adolescents living at home. One hundred twenty three high school students completed measures of family environment, vocational identity, and career planning attitudes. Analyses revealed that the quality of family relationships (i.e., degree to which family members are encouraged to express feelings and problems) played a small, yet significant role in predicting career planning attitudes of adolescents.

KEY WORDS: adolescents; family patterns; career planning; vocational identity.

Career counselors and theorists have long acknowledged the role of the family context in the career development literature (e.g., Hagen, 1960; Herr & Lear, 1984; Peluchette, 1993). The family systems

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approach to career development proposes that the ability to explore and consider career options and make appropriate vocational decisions for a young individual may be directly influenced by the quality of family interactions, boundaries, and emotional interdependencies perpetuated within the family (Brachter, 1982; Lopez & Andrews, 1987; Zingaro, 1983). The prominent role of family dynamics has even surfaced in a small number of career counseling and educational intervention guidelines in the career literature (e.g., Bradley, 1984; Bradley & Mims, 1992; Moon, Coleman, McCollum, Nelson, & Jensen-Scott, 1993; Morrow, 1995; Okiishi, 1987). Despite the widely held theoretical assumptions emphasizing the critical role of the family in career development theory and practice, and some recent research focusing on family variables (e.g., Blustein, Walbridge, Friedlander, & Palladino, 1991; Johnson, Buboltz, & Nichols, 1999), the exact nature of the family influence on career development patterns continues to be empirically elusive and inconsistent (Brachter, 1982; Eigen, Hartman, & Hartman, 1987; Guerra & Braungart-Rieker, 1999; Hargrove, Creagh, & Burgess, 2002; Johnson et al., 1999; Larson & Wilson, 1998; Lopez & Andrews, 1987; Zingaro, 1983).

Some possible reasons for inconsistent findings may be due to differences in operationalizing of constructs and thus the use of diverse family measures across studies. For example, some family-career studies have operationalized family-related variables using birth order and family configuration measures (Leong, Hartung, Goh, & Gaylor, 2001); others have used measures of attachment (Blustein et al., 1991; Blustein, Prezioso, & Schultheiss, 1995; Felsman & Blustein, 1999; Ryan, Solberg, & Brown, 1996). Kinnier, Brigman, and Noble (1990) used measures based on Bowen's intergenerational systems model; and still others have used the two-dimensional circumplex model of family functioning (e.g., Eigen et al., 1987). Thus, there has been very little systemic research using identical or multi-dimensional measures of family functioning.

Some recent studies (Hargrove et al., 2002; Johnson et al., 1999; Whiston, 1996) have been promising in that they have brought about some consistency in operationalization of family functioning by utilizing Moos' (1989) multidimensional Family Environment Scale as a measure of family interaction patterns in relation to career outcomes with college students. Specifically, Whiston (1996) examined the interrelationships between family interaction patterns (as measured by three dimensions of the Family Environment Scale: relationship, personal growth and system maintenance), career

indecision and career decision-making self-efficacy beliefs among male and female college students. Support was found for the hypothesized relations between career decision-making self-efficacy (i.e., ability to make realistic choices, crystallization of career choice using occupational information) and the Personal Growth Dimension (i.e., family-supported goals emphasizing intellectual/cultural pursuits). No support was found for the hypothesized relationships between career indecision and the Relationship Dimension (e.g., degree of cohesion, conflict, and open expression) and between career decision-making self-efficacy and the System Maintenance Dimension. The Whiston (1996) study however, did reveal a number of unexpected results. First, career indecision related inversely to the System Maintenance Dimension for women alone. Second, there were inverse relations between two Personal Growth Dimension factors (independence and achievement orientations) and self-efficacy in using occupational information. While Whiston (1996) concluded that there was some support for the link between family dimensions and career indecision and career decision-making self-efficacy, additional research is needed to clarify the surprising and inconsistent results.

Johnson et al. (1999) also used Moos' (1989) Family Environment Scale with college students. They examined relations between the family relationships dimension (i.e., degree of conflict, cohesion, and expressiveness), parental marital status and college students' vocational identity. Although Johnson et al. (1999) reported small direct (cohesion, expressiveness) and inverse relations (conflict) to vocational identity, only expressiveness accounted for unique variance in vocational identity scores (3%). It is uncertain if other aspects of family functioning may be related to vocational identity beyond the quality of family relationships.

Finally, using all three family dimensions (e.g., quality of family relationships, family-supported goal orientations, and degree of control and organization), Hargrove et al. (2002) explored the relations among family-of-origin patterns, vocational identity and career decision-making self-efficacy. Using a sample of 210 college students, significant variance was accounted for in vocational identity scores by one family-supported goal—achievement orientation. Results also showed a significant relationship between career decision-making self-efficacy scores, three family-supported goals (achievement, intellectual-cultural, moral-religious emphasis orientations), and degree of family conflict and expressiveness. The authors concluded that

perceptions of family relationships and goal orientations may play small, yet significant roles in the formulation of clear and stable career goals and the promotion of self-confidence in regard to completing career planning activities. However, all three studies used a sample consisting primarily of traditional college-aged (18–24 years old) students. While research continues to suggest the possible link between perceptions of family environment and various vocational outcomes among college students, the exact nature of the family-career link as perceived by other samples such as adolescents continues to remain unclear.

For example, Penick and Jepsen (1992) examined the role of family relationships and system maintenance factors, beyond achievement, gender, and socioeconomic status, in the prediction of adolescent vocational identity and career planning scores. Family relationship factors were operationalized as cohesion, expressiveness, conflict, sociability, idealization, and disengagement subscales. Family system maintenance factors were operationalized as organization, locus-of-control, democratic family style, authoritarian family style, laissez-faire family style, and enmeshment. Using a sample of eleventh graders, Penick and Jepsen (1992) found that family system maintenance variables (democratic and authoritarian family styles and enmeshment) and to a lesser extent, expressiveness (positive) and conflict (negative) were significant predictors of vocational identity. In contrast, Eigen et al. (1987) found no empirical support for a relation between family interactions patterns (operationalized along two dimensions family cohesion and adaptability) and career indecision among high school students. The disparity between measures of family functioning or the unique characteristics of the samples may help to explain the inconsistent findings.

The National Career Development Guidelines (NOICC, 1992) suggested that high school adolescents need to become more self-knowledgeable, understand the connection between educational achievement and career planning, and develop solid career planning and decision-making skills. Furthermore, career development interventions should help adolescents particularly in high school address the array of internal and environmental pressures many students experience in making career decisions (Herr & Cramer, 1997). Thus, adolescents may perceive the family environment as an environmental pressure or support when engaging in career planning and exploration. Therefore, the purpose of our study was to further explore the possible interrelations between family

interaction patterns and career planning for male and female adolescents living at home.

Consistent with recent empirical studies (e.g., Hargrove et al., 2002; Johnson et al., 1999; Whiston, 1996), we used the multi-dimensional Family Environment Scale to measure perceptions of the quality of family relationships, family-supported goals, and degree of family control and structure. Although Johnson et al. (1999) used only the family relationships dimension and vocational identity among college students, we decided to be more consistent with the Hargrove et al. (2002) and Whiston (1996) studies, by exploring the link between all three family dimensions on The Family Environment Scale, and career development variables.

We also examined the relation between vocational identity and dimensions of family environment in order to be consistent with previous research with college students (Hargrove et al., 2002; Johnson et al., 1999; Lopez, 1989) and adolescents (Penick & Jepsen, 1992). For instance, Lopez (1989) tested a model predicting college students' vocational identity scores using trait anxiety, academic adjustment, and family variables marital conflict, conflictual-independence (or degree to which students reported freedom from excessive guilt, resentment, and anger in the relationships with both parents) and emotional independence (or degree of freedom from excessive needs for parental approval, closeness, or emotional support). Lopez (1989) reported that conflictual independence from opposite-sex parent was the most potent family-related predictor of vocational identity scores for both male and female college students, beyond trait anxiety and academic adjustment, further supporting the importance of parent-young adult conflict in young adult career development (Brachter, 1982; Lopez & Andrews, 1987; Zingaro, 1983).

Finally, in addition to the formation of a strong vocational identity, we also examined career planning attitudes for adolescents based on the National Career Development Guidelines (NOICC, 1992) and their emphasis on accurate self-knowledge, educational and occupational exploration, career planning, and workforce readiness. Thus, our exploratory study examined the extent to which family-of-origin interaction patterns would predict the vocational identity scores and career planning attitudes of high school adolescents.

Method

Participants and Procedure

The participants in this study consisted of 123 high school students selected from class rosters from six Humanities classes and two open study classrooms. The participants were drawn from grades 9 through 12 at a high school located in a small, rural town in northeastern Pennsylvania. The sample consisted of 48 males and 75 females. Of these, 55% were 9th graders, 10% were 10th graders, 18% were 11th graders, 17% were 12th graders. The mean age was 15.79 ($SD = 1.3$) with a range of 14–18 years. Approximately 93% self-identified as Caucasian, 1% as Native American or Alaskan, 1% as Asian or Pacific Islander, 1% as biracial, and 4% as other. In terms of family living arrangement, 72% lived with both biological parents, 11% lived with a biological mother and stepfather, 2% lived with a biological father and stepmother, 11% were from a single parent home, 2% lived in an adoptive family structure, and 2% did not respond.

The superintendent, Director of Curriculum and Instruction, the principal and guidance counselors were notified of the proposed study and permission was sought to conduct the study at the high school. The principal was supplied with letters to be given to parents for consent of their child's participation. An Art Instructor who assisted in the research gave the students a parental consent form to be signed by parents of student's under the age of 18. The students were informed that they would have a week to return the signed parental permission form. Once parental permission was obtained, students signed an assent form that outlined the procedures and goals of the research. In the classroom, the graduate student researcher and the high school Art Instructor provided the volunteer participants a separate letter of interest, a description of the study, as well as privacy protection information. Participants were informed of the volunteer nature of the study and informed that they could withdraw from participation at any time without consequences. Questions were read aloud to the students by the art instruction for each measure to ensure completion of the assessment materials in the 50 min class period. In order to maintain confidentiality, students were asked to return the completed material in the envelope provided to the Art Instructor who in turn placed them in a collection box given to the primary researcher.

Measures

The Family Environment Scale-Form R (FES-Form R; Moos, 1989)

The FES-Form R is a 90-item, self-report questionnaire used to assess an individual's perceptions of the social climate in the family-of-origin along three dimensions: Relationship, Personal Growth, and System Maintenance. The Relationship Dimension assesses the degree to which family members are perceived to be involved with each other and how openly positive and negative feelings are expressed. The Relationship Dimension consists of three subscales: Cohesion (degree of perceived commitment, support, and help family members provide for each other), Expressiveness (degree to which family members are encouraged to express feelings and problems), and Conflict (amount of openly expressed anger, aggression, and conflict among family members).

The Personal Growth Dimension reflects the family-of-origin's goal orientation or ways the family-of-origin encourages or inhibits an individual's personal growth. The Personal Growth Dimension is made up of the following five scales: Independence (extent to which family members are assertive, make own decisions, and self-sufficient); Achievement Orientation (extent to which school and work activities are cast as indices of achievement or areas of competition); Intellectual-Cultural Orientation (degree to which family members showed interest in political, social, intellectual, and cultural activities); Active-Recreational Orientation (extent to which family members emphasized participation in social and recreational activities); and Moral-Religious Emphasis (extent to which family members emphasized ethical and religious issues and values). Finally, the System Maintenance Dimensions reflect the degree to which the family emphasizes clear organization, control, structure, rules, and procedures in running family life. The System Maintenance Dimensions consists of two subscales: Organization (extent to which the family endorses clear organization and structure in planning family activities and responsibilities) and Control (extent to which rules and procedures are followed and enforced by family members). The Relationship and System Maintenance dimensions reflect more perceived internal family functioning, whereas the Personal Growth (or goal orientation) dimension reflects the link between the family and society.

Using a true-false dichotomous scale, participants were asked to provide their self-perceptions of their family by indicating the degree to which each statement was either true (or mostly true) or False (or

mostly false) of the family environment. Total scores for each subscale were obtained by adding each item value in the respective subscale. Total subscale scores ranged from 0 to 9, and from 0 to 90 for the entire measure. Higher scores indicated a higher degree of the perceived phenomena in the participants' family-of-origin. Internal consistency has been reported to range from .69 to .78 and test-retest coefficients have ranged from .68 to .86 for the FES subscales (Moos, 1989). In the present study, an internal consistency estimate of .78 was observed for the total scale. In addition there is adequate evidence of the convergent and discriminant validity of the FES (Persosa & Persosa, 1990).

Vocational Identity Scale (VIS; Holland, Daiger, & Power, 1980)

The VIS measures the "possession of a clear and stable picture of one's goals, interests, and talents" (Holland, Johnston, & Asama, 1993). The VIS contains 18 items to which individuals respond as "true" or "false." The level of vocational identity is determined by the total number of "false" responses. Total scores may range from 0 to 18, with higher scores indicating a greater degree of vocational identity. Sample items include "I am uncertain about the occupations I could perform well", and "I am not sure of myself in many areas of life". The VIS has high internal consistency, with reliabilities ranging from .86 to .89 for high school, college students, and worker samples (Holland et al., 1993). In the present study, an internal consistency estimate of .88 was observed. Holland et al. (1993) provided adequate convergent and discriminant validity estimates for the VIS.

Career Planning Attitudes (Career Development Inventory; Thompson, Lindeman, Super, Jordaan, & Myers, 1984)

The Career Development Inventory is a 5-dimension career development or maturity inventory designed specifically for 8th–12th graders. For the purposes of the present study, we selected the Career Planning attitudinal scale as a measure of career development based on the NOICC's (1992) guidelines for high school adolescents. Career Planning (CP) is an attitude scale consisting of 20 self-report items designed to assess the degree of engagement in career planning activities (e.g., talking about career plans with adults; getting part-time or summer jobs; entering the workforce after graduation) and overall self-ratings of attitudes toward making career plans. Items are scored using a 5-point Likert scale using letters instead of numbers. The scale ranges from A ("I have not yet given any thought to this") to E ("I have made definite plans, and know what to do to carry them

out.”). Each letter is given a number value; that is, item responses are scored from 1(A) to 5(E) and the total score is yielded from the sum of all 20 items. Thus, total scores may range from 20 to 100 points, with high scores indicating a curiosity about careers, a readiness to looking ahead, and attempts at making tentative plans. Internal consistencies for the CP Scale have ranged from .89 to .93 in previous studies (Graef, Wells, Hyland, & Muchinsky, 1985; Kuhlman-Harrison & Meely, 1980; Nevill & Super, 1988; Selfert, 1991; Thompson et al., 1984; Ward, 1982). Concurrent validity, correlating scores on the CP Scale to relevant external variables have been assessed in numerous studies. Specifically, Savickas (1984) found the CP scale to correlate significantly to two time perspective measures (.50 & .38). Similarly, a study done by Wallace-Broschious, Serafica, and Osipow (1994) showed CP to directly relate to identity achievement and inversely to moratorium and diffuse identity statuses. Finally, discriminant validity using a group differences approach has shown girls (106.46) to out score boys (100.74) on the CP Scale (Wallace-Broschious et al., 1994).

Demographic Information Sheet

Students completed an 8-item demographic questionnaire that assessed their age, gender, ethnicity, religious affiliation, socioeconomic status, residency status, academic major, and year in school.

Results

Table 1 presents the preliminary descriptive statistics (means, standard deviations and range) for the family dimension variables and two vocational measures across males, females, and the total sample. A one-way MANOVA computed to examine potential sex differences on measures of vocational identity, career planning, and the dimensions on the family environment scale was significant; Pillai's Trace = .19, $F(5, 113) = 2.16, p < .05$. Specifically, female adolescents scored higher than male adolescents on perceptions of family expressiveness, $F(1, 117) = 3.81, p < .05$; family emphasis on intellectual-cultural activities, $F(1, 117) = 11.92, p < .001$; and moral-religious values, $F(1, 117) = 8.11, p < .01$. In addition, female adolescents ($M = 70.30$; $SD = 15.93$) scored higher than male adolescents ($M = 63.54$; $SD = 17.11$) on career planning attitudes, $F(1, 117) = 3.93, p < .05$. No gender differences were found on vocational identity scores, $F(1, 117) = 1.45, p > .05$.

Table 1
Means and Standard Deviations for Male and Female Adolescents for All Measures

	<i>Males</i>			<i>Females</i>			<i>Total Sample</i>		
	<i>M</i>	<i>SD</i>	<i>R</i>	<i>M</i>	<i>SD</i>	<i>R</i>	<i>M</i>	<i>SD</i>	<i>R</i>
Relationship dimension	14.17	3.31	8-24	15.43	2.59	9-21	14.95	2.94	8-24
Cohesion	6.33	2.11	1-9	6.57	2.36	1-9	6.48	2.26	1-9
Expressiveness	4.48	2.22	1-13	5.29	1.92	1-9	4.98	2.06	1-13
Conflict	3.37	2.30	0-9	3.56	2.51	0-9	3.49	2.42	0-9
Personal growth dimension	27.70	5.14	14-36	30.57	5.51	15-40	29.48	5.53	14-40
Independence	6.13	1.60	3-9	6.27	1.49	2-9	6.21	1.53	2-9
Achievement orientation	6.00	1.55	2-9	5.96	1.52	2-9	5.98	1.52	2-9
Intellectual-cultural orientation	4.45	1.92	1-9	5.83	2.09	1-9	5.31	2.13	1-9
Active recreation orientation	6.20	2.05	1-9	6.49	1.91	2-9	6.38	1.96	1-9
Moral religious orientation	4.91	2.15	1-9	6.03	2.03	1-9	5.60	2.14	1-9
System maintenance dimension	11.30	2.71	4-16	10.76	2.91	3-16	10.97	2.84	3-16

Table 1
(Continued)

	<i>Males</i>			<i>Females</i>			<i>Total Sample</i>		
	<i>M</i>	<i>SD</i>	<i>R</i>	<i>M</i>	<i>SD</i>	<i>R</i>	<i>M</i>	<i>SD</i>	<i>R</i>
Organization	6.08	1.52	2-9	5.78	1.92	1-9	5.90	1.78	1-9
Control	5.22	1.91	1-9	4.97	2.04	0-9	5.06	1.99	0-9
Vocational identity	10.20	4.51	0-18	11.26	4.33	2-18	10.97	2.83	0-18
Career planning	63.54	17.11	26-97	70.30	15.93	28-100	67.64	16.67	26-100

Note. Male ($n = 46$); Female ($n = 75$); *M* = Mean; *SD* = Standard Deviation; *R* = Range.

Several multiple linear regressions were computed to predict adolescents' vocational identity scores and career planning attitude scores based on the three family environment dimension scores (Table 2). Results showed that the regression equation for vocational identity was not significant ($F(3, 116) = .559, p > .05$), with an R^2 of .01. Thus, based on this particular sample, family interaction patterns cannot be used to predict vocational identity for adolescents. However, a multiple linear regression computed to predict adolescents' career planning attitudes based on family environment dimension scores showed significance ($F(3, 116) = 2.92, p < .05$) with an R^2 of .07. Specifically, the Relationship Dimension ($\beta = .20, p < .05$) was significantly predictive of career planning attitudes. When each of the Relationship Dimension sub-factors were regressed onto career planning attitudes ($F(3, 116) = 2.46, p = .06$), degree of expressiveness in the family was significantly and positively related to career planning attitudes ($\beta = .22, p < .05$).

Discussion

The purpose of the current study was to examine how perceptions of family interaction patterns as defined along three dimensions of

Table 2
Summary of Multiple Regression Analysis Assessing the
Unique Family Environment Predictors of Vocational
Identity and Career Planning of High School Adolescents

	β	R	R^2	F
Vocational identity model		.12	.01	0.56
RD	.07			
PGD	.08			
SMD	.00			
Career planning model		.26	.07	2.92*
RD	.20*			
PGD	.12			
SMD	.03			

Note. RD = Relationship Dimension; PGD = Personal Growth Dimension; SMD = System Maintenance Dimension; * $p < .05$.

family environment (quality of family relationships, family goal-orientations, and degree of organization and control within the family system) might predict vocational identity and career planning attitudes among male and female adolescents living at home. Analyses revealed that the perceived quality of family relationships (i.e., degree to which family members are encouraged to express feelings and problems) played a small, yet significant role in predicting career planning attitudes of adolescents.

With regard to gender differences, female adolescents perceived their families (1) to have more frequent expression of anger, aggression and conflict, (2) to express more interest in political, social, intellectual, and cultural activities, and (3) to have more emphasis on religious issues and values than male adolescents. Interestingly, female adolescents also indicated that they had engaged in more career planning activities (e.g., talking about career plans with adults; getting part-time or summer jobs; entering the workforce after graduation) as compared to their male counterparts.

Consistent with previous studies (e.g., Hargrove et al., 2002; Johnson et al., 1999; Whiston, 1996), the perceived quality of relationships factors (i.e., degree to which family members are encouraged to express feelings and problems) was related to a career development variable—career planning activities. The present results lend some empirical support to the theoretical role of how internalized family messages (i.e., openly discuss problems and feelings) can be directly related to an adolescent's degree of curiosity about careers and attempts at making tentative future career plans (Brachter, 1982; Lopez & Andrews, 1987; Zingaro, 1983).

However, the exploratory multiple regression analysis revealed that perceptions of family environment were not related to vocational identity for adolescents. The lack of an empirical relation between vocational identity and family relationship factors (specifically conflict, cohesion, or expressiveness) is inconsistent with previous research studies with college students (Johnson et al., 1999; Lopez, 1989) and adolescents (Penick & Jepsen, 1992). It may appear that the construct of vocational identity has less practical significance for the career development stage for adolescents. Also, these results may be reflective of the particular sample used in the current study (i.e., 9th–12th graders from a rural setting).

Furthermore, results did not reveal any relationships among other dimensions beyond the quality of family relationships and career

outcomes. Surprisingly, perceptions of family-supported goals (i.e., extent to which family members emphasized participation in social and recreational activities) were not related to adolescent vocational identity scores or career planning attitudes. This finding is inconsistent with previous research with college students (e.g., Hargrove et al., 2002; Whiston, 1996).

Finally, the present results also revealed that none of the family system maintenance dimension factors were significant predictors for career development outcomes. This finding seems to be consistent with the study conducted by Hargrove et al. (2002), but inconsistent with other previous research (e.g., Penick & Jepsen, 1992; Whiston, 1996). Thus, it is possible that perceptions of family factors in terms of the degree of organization and control in the family may not play an important role in some career outcomes for adolescents. Furthermore, these results suggest that the degree of relationship between perceptions of family functioning may vary for adolescents versus college students.

Overall, this quantitative, correlational study provided mixed results regarding the presence of significant relations between career development variables and family environment factors. It is possible that the inconsistencies in the literature and the current study may be a function of other moderating variables (e.g., ethnicity, rural/urban settings) or the methodology. Future research needs to continue to clarify the role of quality of family relationships and family-supported goals in the career development of adolescents living at home versus young adults. Studies should focus on sampling adolescents at different grade levels, at-risk adolescents, and members from more diverse communities. Finally, future research may need to use alternative research methodologies (e.g., case studies, qualitative methods, mixed designs) to further clarify these subtle and mixed family-career relationships found mostly using group, quantitative designs.

The present study has a number of limitations therefore these results should be interpreted with some caution. First, the study was limited by a reliance on self-reports to accurately reflect family-of-origin interaction patterns. Second, the correlational design of the study does not allow cause-and-effect statements to be made. Finally, consistent with previous studies, majority of the sample represented predominantly White, adolescents attending a public high school in a rural area in the northeast. Despite these limitations, preliminary findings in the current study provide some evidence in supporting the

role of family variables in career decision-making. We encourage counselors to continue to consider and explore how their clients' perceptions of their family-of-origin relationships may color their clients' career planning activities and decisions.

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