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ABSTRACT

Trends in recent literature advocate a family systems approach to career development. To examine associations between process aspects of adolescent career development and family adaptability-family cohesion, 262 Virginia high school students (157 females, 105 males) completed the Career Development Inventory, the Assessment of Career Decision Making, and the Family Adaptability and Cohesion Evaluation Scales. An analysis of the results showed that significant linear relationships existed between specific career development process variables (intuitive style, career planning, decision-making information, and world-of-work knowledge) and family adaptability-family cohesion measures. For the total sample, only the decision-making and world-of-work information variables were significantly associated with both family adaptability and cohesion. Among other findings, supplementary analyses produced evidence that the adaptability-cohesion family dimensions were correlated constructs. These findings suggest that both the school and the family system influence an adolescent's career development. (BL)

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Abstract

Adolescent Career Development and the Family System

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This study's purpose was to examine associations between process aspects of adolescent career development and key family system dimensions. Influenced by hypotheses derived from the Circumplex Model, relationships between eight career development process variables and family adaptability-family cohesion were explored and tested for significance and curvilinearity.

Study subjects included 262 adolescent, high school seniors from three (an urban, suburban, and rural) schools located in Southwest Virginia. Three summary hypotheses were tested applying multiple regression statistical procedures. In the regression models tested, career development variables were measured through the administration of the Career Development Inventory (CDI) and the Assessment of Career Decision-Making (ACDM). Family system scores were obtained through the administration of the Family Adaptability and Cohesion Evaluation Scales (FACES).

Results of adolescent responses indicated that statistically significant relationships existed between specific career development process variables (intuitive style, career planning, decision-making information and world-of-work knowledge) and family adaptability-family cohesion measures. In contrast to hypotheses based in the Circumplex Model, where statistically significant associations were observed, the relationships were linear in nature. For the total sample, only the decision-making and world-of-work information variables were significantly associated with both family adaptability and cohesion. Among other findings, supplementary analyses produced evidence that the adaptability-cohesion family dimensions were correlated constructs.

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Adolescent Career Development and the Family System

Purpose and Literature Review

Observing developments and trends in the literature, Hesser (1) predicted that scholarly attention would be directed toward discussing family based strategies designed to promote individual career development. To accommodate such action, he recommended that a new career development model be developed featuring a social (family) systems orientation. Subsequently, BRATCHER (2) discussed the influence of the family upon career selection from a family systems perspective, and Zingaro (3) suggested that a family systems conceptual approach be adopted by career counselors. While both of these authors advocated working from a family systems orientation, neither provided sufficient research evidence to justify linking the family system with career development.

Comprehensive career studies, e.g., The Career Pattern Study (4) and the Vocational Development Project (5,6,7) have previously investigated the adolescent career development process, but have not examined to any great degree the association between dynamic family system elements and specific process aspects of adolescent career development. Traditional research involving both the family and adolescent career development has been limited in scope. In the past, when these two areas were explored, the family variables most frequently examined related to parent's socio-economic class, while the adolescent career variable most often studied was vocational choice/occupational aspiration level (7,8). Initial studies involving Roe's (9) model, which stressed family environment, also focused upon career choice outcomes.

Regarding the state-of-the art, legitimate need exists to explore the association between process elements of adolescent career development in association with the family as a social system. The purpose for this study is to address this need by measuring and describing relationships found to exist between the major family system variables of adaptability and cohesion, and the following adolescent career development process variables: career planning, career exploration, career decision-making information, world-of-work information, occupational commitment, and decision-making style.

Method

Sample

A survey was conducted involving 262 adolescent, high school seniors attending three different secondary schools in Southwest Virginia. According to location-of-residence, sex, and race, the sample was composed of the following:

- (1) Location-of-residence: 115 rural, 46 suburban, and 101 urban students.
- (2) Sex: 157 females, and 105 males.
- (3) Race: 40 blacks, and 222 caucasians.

Instrumentation

As part of the field survey, three assessment instruments were administered:

- (1) The Career Development Inventory: Part I (CDI:P1) -Derived from the theoretical model originating with the Career Pattern Study (4) developed by Thompson, Lindeman, Super, Jordaan, and Myers (10), this inventory consists

of four scales measuring the following aspects of career development: career planning (C), career exploration (CE), career decision-making (DM), and world-of-work (WW), information. The CP and CE subscales measure attitudinal while the DM and WW subscales measure cognitive dimensions.

- (2) The assessment of Career Decision-Making: Decision-Making Style (ACDM-S) and Occupational Commitment (ACDM-O) Scales: Developed by Harren (11,12), from an instrument originally designed to test the occupational decision-making model of Tiedeman and O'hara (13), the ACDM-O and ACDM-S, assess two additional aspects of career development. The ACDM-O determines career choice certainty, while the ACDM-S discerns the relative degree to which individuals manifest rationalism, intuition, or dependence when making decisions.
- (3) Family Adaptability and Cohesion Evaluation Scales (FACES): Derived from the Circumplex Model of Marital and Family Systems (14) and developed by Olson, Bell, and Portner (15), this scale consists of two parts. The Adaptability Scale measures a family's predisposition to change (rigid, structured, flexible, chaotic) and includes factors, e.g., assertiveness, control, discipline, negotiation, roles, rules and system-feedback. The Cohesion Scale assesses the distance between family members (disengaged, separated, connected, enmeshed) and includes factors, e.g., emotional bonding, independence, family boundaries, coalitions, time, space, friends, decision-making, and interests and recreation.

Assumptions

Hypotheses were based upon the following assumptions:

- (1) Career development is a form of personal development.
- (2) Personal development is affected by family development.
- (3) Family development is influenced by how a family functions.
- (4) Family functioning is contingent upon the interaction of adaptability and cohesion forces which characterize the family system.
- (5) A curvilinear relationship exists between family cohesion/ adaptability levels and the family's capacity to function.

Hypotheses

Hypothesis 1 - The multiple correlation between each of the career development process variables and the variable set consisting of FA-FC will be equal to 0.

Hypothesis 2 - The multiple regression coefficients (Beta weights) between each career development process variable and each variable in the set consisting of FA and FC will be equal to 0.

Hypothesis 3 - For each of the hypotheses related to Hypotheses 1 or 2 which is rejected, the association between the career development process variable and FA and/or FC will be non-curvilinear.

Analysis

Hypothesis testing was conducted using statistical methods stipulated in the Statistical Package for Social Sciences (16). Multiple regression analyses and stepwise regression procedures were used when testing for multiple correlations, non-linear trends and curvilinearity. Supplementary correlation and regression analyses were performed on a selective basis. The latter was restricted to models where both the Multiple-R and the R-values (involving at least one of the two family system variables) were statistically significant ($p < 0.05$).

Results

Hypothesis 1: Regressing each career development process variable on FA-FC produced eight regression models to test in association with the first summary hypothesis. Table 1 shows that two of eight null hypotheses were rejected. Those rejected involved the CDI-DM and CDI-WW variables. The Multiple-R of 0.26 between FA-FC and CDI-DM produced an $F(2,259)$ value of 9.19 ($p < 0.01$), whereas the Multiple-R of 0.25 between FA-FC and CDI-WW yielded an $F(2,259)$ score of 8.45 ($p < 0.01$).

Hypothesis 2: This summary hypothesis tested the bivariate relationship(s) between either FA or FC and one career development process variable. Each model produced two F-values in regard to the significance level for each bivariate association. When tested, null hypotheses were rejected in six of sixteen cases. (See Table 1).

Statistically significant regression coefficients were computed for the relationships involving the following variables:

- (1) ACDM-IS with FA, $F(1,259)$ of 4.45 ($p < 0.05$), B value equal to 0.14.
- (2) CDI-CP with FC, $F(1,259)$ of 5.25 ($p < 0.05$), B value equal to 0.16.
- (3) CDI-DM with FA, $F(1,259)$ of 5.69 ($p < 0.05$), B value equal to -0.16.
- (4) CDI-DM with FC, $F(1,259)$ of 18.00 ($p < 0.01$), B value equal to 0.28.
- (5) CDI-WW with FA, $F(1,259)$ of 15.32 ($p < 0.01$), B value equal to -0.26.
- (6) CDI-WW with FC, $F(1,259)$ of 7.94 ($p < 0.01$), B value equal to 0.19.

Hypothesis 3: In eight cases where significant associations were identified, regression analyses (using dummy variables) were conducted to test for non-linear trends. Of the eight models tested, statistically significant R^2 increases were found in the three models appearing in Table 2 which involve the following variables: DM with FA, WW with FA, and WW with FA and FC. To better define the non-linear trends noted, further stepwise regression analyses were performed using polynomial equations. For each of the bivariate or multivariate regression models tested, the second degree polynomial equation best described the relationships studied. In no instance was the magnitude of the R^2 increase great enough to reach significance at the 0.05 probability level. In view of the results reported, the summary null hypothesis was not rejected.

Discussion

This study established statistically significant, but numerically limited relationships, between family adaptability (FA) and/or family cohesion (FC) and four career development process variables: intuitive decision-making style (IS), career planning (CP), decision-making (DM) knowledge, and world-of-work (WW) information. In regard to decision-making style, higher intuition levels were found associated with higher FA. Positive attitudes toward CP were related to higher FC. The FA and FC dimensions were found to be differentially related to DM and WW scales of the CDI. Specifically, higher DM and WW scores were associated with lower FA, but higher FC. In each instance where statistical significance was discerned regarding FC, the associations observed were direct. In contrast, FA was found to be differentially related to the DM and WW scales of the CDI (direct) and the IS scale of the ACDM (inverse).

The strongest multiple correlations emerged from the regression models involving the cognitive scales of the CDI. The largest Multiple-R value (0.26) was noted in the model involving the FA, FC and DM variables. In this model, seven percent of the

variance of DM was attributed to the FA-FC variables. In no instance where a statistically significant non-linear trend was identified, did subsequent testing for curvilinearity produce a significant result.

The latter finding suggests (equivocally) that a linear (not curvilinear) relationship exists between certain family system and career development process variables. Assuming that personal development is influenced by family development (and functioning), the premise that a curvilinear relationship exists between the FA and FC variables is challenged. Supplementary correlation analysis produced an r -value of 0.43 for the association between FA and FC. This result challenged the premise of the Circumplex Model which claims that FA and FC are independent constructs. A third contradiction emerged from a supplemental finding involving independence (an FC subdimension) and the DM and WW scales of the CDI. Specifically, greater dependence (not independence) was found to be correlated with higher knowledge about career decision-making and the world-of-work. This outcome suggested that positive indicators of adolescent career development may be associated with a less-than-favorable indicator (greater dependency) of adolescent personal development.

The results reported raise the following questions: (1) Do the findings accurately reflect the actual situation? or (2) Do they suggest the existence of relationships of which the magnitudes and directions remain to be determined? For reasons having to do with but not limited to instrumentation and the study sample, the answer to the former is "Probably No" and to the latter it is "Probably Yes". To qualify, the reliability coefficients computed for the ADCM-IS was 0.61 and for the CDI-DM scale was 0.67. For the FA and FC scales the internal consistency coefficients were calculated to be 0.61 and 0.68 respectively. If these instruments were more accurate, it is possible that stronger relationships and possibly curvilinear relationships may have been found. A new revised version of the FACES is currently available which is reported by Olson et al (17) to be more reliable.

Other outcomes may have resulted if the samples composition was different. The sample had a disproportionate number of female students which was due to an underrepresentation of suburban male participants. Moreover, 22 students were disqualified from the study because they did not complete the entire battery of survey instruments and/or their responses were deemed invalid. It was stated by school officials that a number of disqualified students were problematic in the school setting and were living in troubled home environments. It is speculated that if the responses of the non-participants and disqualified students had been included, the frequency and dispersion of scores at the extreme ends of the FA-FC scales may have been greater which could have yielded different results for the reliability and curvilinearity findings.

On the FACES, the study sample's responses were skewed towards high cohesion (connected to enmeshed) and high adaptability (flexible to chaotic), yet when CDI mean scores were compared with the CDI norm group results, the study sample's average scores were found to be greater on three (CE, DM, and WW) of the four CDI scales. This finding could be interpreted as being consistent with the Circumplex Model's hypothesis that when adjusting to family stress precipitated by change, e.g., the presence of a developing adolescent in the family, normal families typically shift from one dimension level to an adjacent one. An alternate interpretation has implications for the nature of the family system as well as the impact of the school. Young (18) defined the family system as an open system. By this it was meant that even though it has boundaries, the family (and its individual members) is/are influenced by external forces e.g., the school. It may very well be that despite the family's potential to exert an inhibiting or negative effect upon adolescent development, the school system may manifest a positive, counterbalancing influence in an area, e.g., career development. It is interesting to note that each of the schools included in the study had organized career education programs in operation.

TABLE 1
CD VARIABLES REGRESSED ON FA-FC

CD	FACES	BETA	R	R	DF	F
CDI CP	FA	-0.03	-	-	1,259	0.25
	FC	0.16	-	-	1,259	5.25*
	FA+FC	-	0.15	0.02	2,259	2.77
C	FA	0.03	-	-	1,259	0.17
	FC	0.13	-	-	1,259	3.38
	FA+FC	-	0.14	0.02	2,259	2.57
DM	FA	-0.16	-	-	1,259	5.69*
	FC	0.28	-	-	1,259	18.00**
	FA+FC	-	0.26	0.07	2,259	9.19**
WW	FA	-0.26	-	-	1,259	15.32**
	FC	0.19	-	-	1,259	7.94**
	FA+FC	-	0.25	0.06	2,259	8.45**
ACDM O	FA	-0.10	-	-	1,259	1.95
	FC	0.06	-	-	1,259	0.89
	FA+FC	-	0.09	0.01	2,259	1.05
RS	FA	0.01	-	-	1,259	0.03
	FC	0.10	-	-	1,259	2.13
	FA+FC	-	0.11	0.01	2,259	1.46
IS	FA	0.14	-	-	1,259	4.45*
	FC	-0.06	-	-	1,259	0.70
	FA+FC	-	0.13	0.02	2,259	2.23
DS	FA	0.09	-	-	1,259	1.55
	FC	0.02	-	-	1,259	0.05
	FA+FC	-	0.09	0.01	2,259	1.12

*P<0.05, ** P<0.01.

TABLE 2
RESULTS OF TEST FOR CURVILINEARITY

VARIABLES		EQUATION POWER	BETA VALUE	R ²	R ² CHANGE F-VALUE
CDI	FA-FC				
DM	FA	Linear	0.77	0.00	-
		Quadratic	-0.81	0.01	1.13
		Cubic			NC ¹
WW	FA	Linear	1.10	0.03	-
		Quadratic	-1.29	0.04	2.93
		Cubic			NC
WW	FC	Linear	0.19	-	-
	FA	Linear	0.68	0.61	-
	FA	Quadratic	0.94	0.68	1.53
	FA	Cubic			NC
WW	FA	Linear	-0.26	-	-
	FC	Linear	1.46	0.61	-
	FC	Quadratic	-1.27	0.69	2.11
	FC	Cubic			NC

¹NC = not computed

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