

Family Dynamics and Career Decision Self-Efficacy: A study of first year Malaysian
undergraduates

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Abstract

The study explores the relationship between family functioning and career decision making self-efficacy in a sample of 925 college students in Malaysia. The results indicate that the relationships between family functioning subscales and career decision-making self-efficacy subscales were between small and moderate. The study also found that each family functioning subscale contributed less than 15% of the variance in career decision-making self-efficacy. The total variance accounted for by the six family functioning subscales was small (32%). Implications for career counseling and future studies are discussed.

Keywords: career decision-making self-efficacy; family functioning

Researchers in different fields such as child development, vocational psychology, and sociology have acknowledged the influence of family on career development (Whiston & Keller, 2004). Ann Roe (1956) was among the first to propose the role of family in career decision-making. Roe theorized that early childhood experiences are related to ultimate career selection of the individuals. Although Roe's theory has been criticized due to lack of empirical research to support her theory (Osipow, 1997; Trice, Hughes, Odom, Wood, & McClellan, 1995), many researchers have been conducted examine the extent and the influential role of the family on career development. While early research concerning family background relating to career development have focused more on demographic factors, such as parents' educational background, income, and occupation (Lee, 2003), increased attention has been given to family dynamics,

which may provides an additional insight into the influence of family. According to Way and Rossmann (1996), family contributes to career decisions in a number of ways. Among them are interactions about careers and participation in their children's schooling. In particular, family functioning or family dynamics play a crucial role in career development. Many studies, especially in the United States, have been conducted to explore the potential relationships between family functioning and career decision-making. In Malaysia, most studies have a limited scope and have been centered on the role of family demographic backgrounds only (e.g., parents' educational and income levels and occupational status) (Ahmad, 1994; Salleh, 1994).

The role of self-efficacy in career decision-making also has not received attention by Malaysian researchers. Previous studies have shown that self-efficacy in career decision-making play an important role in the development of career commitment, career interests, vocational identity (Betz & Taylor, 2000). Malaysian college students, like many other college students, are often faced with challenges when planning and selecting their career. Because they live in a collectivist society, in which the needs of the group are put before the needs of the individuals, their career decisions are also influenced by the group. Perhaps one of the challenges is to make sure what they plan are approved by their families. It is not surprising because as pointed out by Leong (2002), the type of society in which individuals grow up, may affect the way they communicate, their life style, and the way they solve problems and make decisions. For most Malaysians, the family is the primary source for teaching children how to behave and how to make decisions in life. Cohesion and relational interdependency among family members are greatly emphasized. Discussion with family members and consultations with the head of

the family before making any decisions are highly recommended to maintain the unity of the family. Until a person is married, the family-of-origin continues to dominate an individual's life. Moving out from the parents' home is uncommon unless there are acceptable reasons such as furthering studies, work, or marriage. Because there is a strong influence from extended family towards decision making, children are expected to always consider their family as the main source of reference. The need to respect family desires may be more important than individual needs. Making educational and vocational choices are some of the decisions usually influenced by the family. Considering the importance of family role in career development, the present study attempts to examine the possible relationships between family functioning and career decision-making self-efficacy for Malaysian college students. This will identify to what extent patterns of family functioning relate to their career decision-making self-efficacy.

Family functioning or family dynamics refers to social climate or interaction patterns of the family. Family systems theory is used as a foundation for understanding family functioning. Six areas of family functioning were used to measure students' family functioning. Career decision-making self-efficacy refers to the degree of confidence to successfully perform tasks necessary in career decision-making (Betz, Klein, & Taylor, 1996).

Method

Participants

Participants were 925 college students from a public university in Malaysia. Of the participants, 74.6% ($n = 690$) were females and 25.4% (235) were males. In terms of

ethnicity, 64.5% ($n = 597$) were Malays, 31.1% ($n = 288$) were Chinese, and 4.3% ($n = 40$) were Indians. To identify students' major field of study, participants were asked to indicate the college that they enrolled in. The majority of the participants (67.1%, $n = 621$) were in art and social science majors, in comparison to 32.3% ($n = 304$), who were in science majors. An examination of the parents' education level indicated that only 24.1% of the fathers had post-secondary (college) education compared to more than 40% who had a secondary level of education. For mothers, only 17.3% had college education compared to more than 50% who completed upper secondary education. These data show that most participants were first-generation college students.

Procedure

Participants were recruited using a modified, stratified random sampling procedure. Using this procedure, one class of first year students from each faculty and academy were selected from the first year class list provided by the dean or deputy dean of each faculty and academy. In some faculty where there was only one class of first year students (e.g., faculty of dentistry and faculty of law), all students from the class were invited to participate. In other faculties, where there was more than one class of first year students, the first class on each list was selected. Once the classes were selected, packets of instruments were distributed to participants during class time.

Measures

The instruments used were a demographic information sheet, the Family Assessment Device (FAD), and the Career Decision Self-Efficacy Scale-Short Form (CDSE-SF). The FAD (Epstein, Baldwin, & Bishop, 2000) and the CDSE-SF (Betz & Taylor, 2000) were originally developed by U.S researchers in English. For this study, all

data collection was done using the Malay language because it is considered the first language and recognized as the formal language of Malaysia. The Malay language is the medium of instruction in all public schools and public universities. Passing the Malay Language examination paper is a prerequisite for entry into all Malaysian public universities. Although English language is also used as a medium of instruction in several faculties, it is only considered a second language. The FAD and the CDSE-SF were adapted to Malay by back-translation method (Brislin, 1986) involving two steps. First, the original items of all the instruments were translated into Malay. Second, the Malay versions of the instruments were translated back into English. A translation team that included two native speakers who understand both English and the Malay language and are familiar with the Malaysian culture was formed. The first translator reviewed the instruments for their relevance for the Malaysian culture. Items that were considered incomprehensible or irrelevant in the Malay language were highlighted. The instruments then were translated into the Malay language. The translation and back-translation were carried out by two native Malay speakers, both are fluent in English and Malay and have completed their studies in Malaysian schools. The researcher and the first translator found that item 27 in the FAD (We have no clear expectation about toilet habits) is not clear to Malaysian culture. Item 27 (We have no clear expectation about toilet habits) in the original FAD was changed to (We do not have a clear expectation about maintaining our personal hygiene and toilet cleanliness). The change was made to ensure that it is culturally relevant. The authors of the instrument were notified about the modification and they deemed this modification appropriate.

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Demographic Information Sheet

The first instrument gathered data on the demographics of the sample. Participants completed a 6-item demographic questionnaire reporting their gender, ethnicity, faculty or academy that they enrolled in, residential setting, father's educational level, and mother's educational level.

Family Assessment Device (FAD) – Malay Version

The second instrument (FAD) is a 60-item measure assessing perceptions of the social climate of the family. The original English version was developed by Epstein et al. (2000). It has seven subscales: (1) Problem Solving; (2) Communication; (3) Roles; (4) Affective Responsiveness; (5) Affective Involvement; (6) Behavior Control; and (7) General Functioning. The FAD is based on the McMaster model of family functioning, which consists of 53 items (Epstein, Baldwin, & Bishop, 1983). The instrument was modified recently to increase its reliability with seven new items added (Epstein et al., 2000). The new scale that consists of 60 items was used for this study.

The Career Decision-Making Self-Efficacy Scale (CDSE; Taylro & Betz, 2000).

The short version of CDSE-SF was used to assess the degree of confidence in the ability to successfully complete career decision-making tasks. The subscales of CDSE-SF include Self-Appraisal, Occupational Information, Goal Selection, Career Planning, and Problem Solving.

RESULTS

Means and Standard Deviations of Family Functioning and Career Decision-Making Self-Efficacy Subscales

The mean scores are used to determine which of the subscales of the FAD and the CDSE-SF are of uppermost concern and which are of least. The results are presented in Table 1. For the FAD, a cut-off score of 2.00 (Miller et al., 1985) was used to determine the level of family relationship difficulties.

Table 1

Means and Standard Deviations of the Scores of All Participants on the FAD and CDSE-SF Subscales

Subscale	Mean	Std. Dev.
FAD		
Problem Solving	2.06*	.36
Communication	2.17*	.37
Roles	2.15*	.30
Affective Responsiveness	2.37*	.34
Affective Involvement	2.14*	.37
Behavior Control	2.21*	.33
CDSE-SF		
Self-Appraisal	3.58**	.63
Occupational Information	3.39**	.61
Goal Selection	3.45**	.64
Career Planning	3.55**	.68

* Lower means indicate higher level of family functioning

** Higher means indicate higher level of career decision-making self-efficacy

As shown in Table 1, the total group of participants have a mean score of 2.37 with a standard deviation of .34 in Affective Responsiveness, a mean score of 2.21 with a standard deviation of .33 in Behavior Control, a mean score of 2.17 with a standard deviation of .37 in Communication, a mean score of 2.15 with a standard deviation of .30 in Roles, a mean score of 2.14 with a standard deviation of .37 in Affective Involvement, and a mean score of 2.06 with a standard deviation of .36 in Problem Solving.

Based on this data, it is inferred that participants view their families as having less difficulties in solving family-related problems. The mean score for Problem Solving is slightly higher ($M = 2.06$) than the cut-off score ($M = 2.00$) suggested by Miller et al. (1985). This is followed by Affective Involvement, Roles, Communication, and Behavior Control, and Affective Responsiveness. The means for these subscales are also higher than the recommended cut-off score, suggesting that participants perceive their families as unhealthy across all areas of functioning. The findings also show that participants perceive their families as having more difficulties in responding to a given stimulus with an appropriate quality and quantity of feelings (Affective Responsiveness) than expressing and maintaining standards for the behavior of its member (Behavior Control), exchanging information among them (Communication), establishing patterns of behavior for handling family functions, (Roles), showing interest and affection on each other (Affective Involvement), and resolving family issues (Problem Solving).

For the CDSE-SF subscales, the total group of participants have a mean score of 3.58 with a standard deviation of .63 in Self-Appraisal, a mean score of 3.55 with a

standard deviation of .68 in Career Planning, a mean score of 3.45 with a standard deviation of .64 in Goal Selection, a mean score of 3.39 with a standard deviation of .61 in Occupational Information, and a mean score of 3.34 with a standard deviation of .59 in Problem Solving. Among the five subscales studied, the findings show that participants have the highest confidence in Self Appraisal, followed by Career Planning, Goal Selection, and Occupational Information. The lowest ranked subscale is Problem Solving, indicating that they have the lowest confidence in solving career-related problems. In summary, the analysis indicates that participants have more confidence in assessing their abilities to make career related-decisions than making career plans, selecting or deciding upon a major or a career, finding job information, and solving career-related problems.

A one-way MANOVA was computed to examine potential sex differences on measures of family functioning and career decision-making self-efficacy. The MANOVA was not significant, thus, all subsequent analyses were computed using the total sample. Table 2 presents the matrix of Pearson correlations computed to examine the relationship between each of the family functioning subscale scores and career decision-making self-efficacy subscale scores.

Table 2

Pearson Correlations between Family Assessment Device (FAD) and Career Decision-Making Self-Efficacy Scale-Short Form (CDSE-SF)

FAD	CDSE-SF				
	SA	OI	GS	CP	PS
Problem Solving	-.30*	-.24*	-.24*	-.30*	-.25*

Communication	-.24*	-.19*	-.21*	-.26*	-.18*
Roles	-.25*	-.21*	-.23*	-.26*	-.15*
Affective Responsiveness	-.11*	-.08**	-.09*	-.15*	-.10
Affective Involvement	-.12*	-.06	-.12*	-.10*	-.10
Behavior Control	-.21*	-.21*	-.17*	-.25*	-.14*
General Functioning	-.26*	-.21*	-.23*	-.30*	-.19*

* Correlation is significant at the .01 level (2-tailed)

** Correlation is significant at the .05 level (2-tailed)

Note: Career Decision-Making Self-Efficacy (SA = Self-Appraisal; OI = Occupational Information, GS = Goal Selection; CP = Career Planning; PS = Problem Solving)

As shown in Table 1, small, negative correlations were found between the FAD Roles and the CDSE-SF Self-Appraisal ($r = -.25, p < .001$), Occupational Information ($r = -.21, p < .001$), Goal Selection ($r = -.23, p < .001$), Career Planning ($r = -.26, p < .001$), and Problem Solving ($r = -.15, p < .001$). The findings show that the patterns of behaviors that handle family functions are associated with family members' confidence in assessing their abilities to make career decisions, finding occupational information, selecting a major or a career, and solving career-related problems.

Weak, negative correlations were observed between the FAD Affective Responsiveness and the CDSE-SF Occupational Information ($r = -.08, p < .05$) and Goal Selection ($r = -.09, p < .01$). The weak correlations suggest that the relationships were negligible. Small, negative correlations were observed between the FAD Affective Responsiveness and the CDSE-SF Self-Appraisal ($r = -.11, p < .001$) and Career Planning ($r = -.15, p < .001$). Although the relationships were small, the results suggest

that perceived family's ability to experience appropriate affect to environmental stimuli are related to participants' confidence in assessing their abilities to make career decisions and making career plans.

Small, negative correlations were also found between the FAD Affective Involvement and the CDSE-SF Self-Appraisal ($r = -.12, p < .001$), Goal Selection ($r = -.12, p < .01$), and Career Planning ($r = -.10, p < .001$). The findings suggest that the degree of interest and affection placed on each family member is related to participants' confidence in assessing their abilities to make career decisions, selecting a major or a career, and making career plans.

Small, negative correlations were revealed between the FAD Behavior Control and CDSE-SF Self-Appraisal ($r = -.21, p < .001$), Occupational Information ($r = -.21, p < .001$), Goal Selection ($r = -.17, p < .001$), Career Planning ($r = -.25, p < .001$), and Problem Solving ($r = -.14, p < .001$). Although the correlations were small, the findings show that the patterns adopted for handling family members' behaviors are associated with confidence in assessing their abilities to make career decisions, finding job information, selecting a major or a career, and making career plans.

A moderate relationship was observed between the FAD General Functioning and the CDSE-SF Career Planning ($r = -.30, p < .01$). There were also relationship between the FAD General Functioning and other four CDSE-SF subscales. Specifically, the study found small relationships between the FAD General Functioning and the CDSE-SF Self-Appraisal ($r = -.26, p < .01$), Occupational Information ($r = -.21, p < .01$), Goal Selection ($r = -.23, p < .01$), and Problem Solving ($r = -.19, p < .01$). The results indicate that overall functioning of the family is related to confidence in assessing the ability to make

career decisions, finding occupational information, selecting a career or a major, and solving career-related problems.

In summary, the analyses indicate that there are moderate relationships between the ability to solve family-related problems and self-efficacy expectations related to self-appraisal and career planning. A moderate relationship is also found between the overall functioning of the family and confidence in making future or career plans. Small relationships are observed between perceived family's ability to solve family-related problems and confidence in finding occupational information, selecting a major or a career, and solving career problems. The analyses also show that the exchange of verbal communication within a family (Communication), the patterns of behavior by which family members fulfill family functions (Roles), the patterns adopted for handling family members' behaviors (Behavior Control) are related to participants' confidence in finding occupational information, selecting a major or a career, making career plans, and solving career-related problems. However, the relationships are small. There are also small relationships between perceived family's ability to experience appropriate affect to environmental stimuli (Affective Responsiveness) and the confidence in assessing the ability to make career decisions and making career plans. Small relationships are also found between the degree of interest and affection placed on each family member (Affective Involvement) and self-efficacy in assessing the abilities to make career decisions, finding occupational information, and selecting a major or a career. Small relationships are also observed between the overall functioning of the family and confidence in assessing the ability to make career decisions, finding occupational information, selecting a major or a career, and solving career-related problems. The

correlation coefficient values for these variables are between $r = .10$ to $r = .30$. Cohen (2000) suggests that as a rule of thumb for estimating the size of correlation, an r value of .10 to .29 (or -.10 to -.29) indicates a small correlation and an r value of .30 to .49 (or -.30 to -.49) indicates a moderate correlation. Thus, the findings show that for the most part, family functioning variables are related to career decision-making self-efficacy. However, the correlations are not strong enough to establish family functioning as a reliable predictor of career decision-making self-efficacy. The analyses also show that the correlation between perceived family's ability to experience appropriate affect to environmental stimuli (Affective Responsiveness) and self-efficacy expectations related to occupational information and goal selection are very small. These findings suggest that there are weak relationships between perceived family's ability to experience appropriate affect to environmental stimuli and confidence in finding occupational information and selecting a career or a major.

The contribution of family functioning on career decision-making self-efficacy is shown in Table 3. All family functioning subscales make a statistically significant unique contribution to the equation. The largest beta coefficient (β) is for Problem Solving (-.31). This means Problem Solving makes the strongest unique contribution to explain career decision-making self-efficacy. The value of the coefficient of determination (r^2) was .10. This indicates that 10% of the variance in Problem Solving was associated with variance in career decision-making self-efficacy. Although accounting for 10% only, the results suggest that students' perspectives regarding their family's abilities to resolve family issues contribute most significantly to their confidence in making career decisions.

Table 3

Summary of Simultaneous Regression Analysis Assessing the Unique Effects
of the Six Family Functioning Subscales Predicting
Career Decision-Making Self-Efficacy

Family Functioning Subscales	B	β	F	r^2
Problem Solving	-11.73	-.31*	99.11	.10
Communication Roles	-9.23 -11.63	-.26* -.26*	64.19 67.06	.07 .07
Affective Responsiveness	- 4.44	-.11*	11.49	.01
Affective Involvement	- 3.80	-.10*	10.36	.01
Behavior Control	- 9.52	-.23*	51.83	.06

* Significant at $p < .01$

The second largest beta coefficients (β) are for Communication and Roles subscales (-.26). The value of the coefficient of determination (r^2) for each of the subscale was .07. This indicates that only 7% of the variance in career decision-making self-efficacy was contributed by each of the subscale (Communication and Roles). The results also suggest that the effectiveness and content of information exchange among family members (Communication) and patterns of behavior that handle family functions (Roles) contribute to students' confidence in their abilities to make career-related decisions. However, the contributions are small suggesting that factors other than communication and roles may also contribute to their confidence.

The third largest beta coefficient (β) is for Behavior Control (-.23). The value of the coefficient of determination (r^2) was .06. This indicates that only 6% of the variance in career decision-making self-efficacy was contributed by Behavior Control. The finding

indicates that norms or standards governing individuals' behaviors (Behavior Control) contribute to students' confidence in career decision-making even though the contribution is small.

Affective Responsiveness and Affective Involvement had the lowest beta coefficient (β). Affective Responsiveness had -.11, while Affective Involvement had -.10. The value of the coefficient of determination (r^2) for each of subscale was .01, indicating that each of them accounted for only 1% of the variance in career decision-making self-efficacy. This means that the effects of family members' ability to respond with appropriate affect to environmental stimuli and the amount of affection family members place on each other on students' career decision-making self-efficacy are very small.

In conclusion, the analyses show that family's ability to solve family-related problems makes the largest contribution (10%) to career decision-making self-efficacy. This is followed by the effectiveness and content of information exchange among family members and patterns of behavior that handle family functions (each contributes 7%), norms and standards governing individuals' behaviors (Behavior Control (6%). Finally, family members' ability to respond with appropriate affect to environmental stimuli and the amount of affection family members place on each other contribute only 1% to career decision-making self-efficacy. Overall, the total variance of six family functioning areas accounted for career decision-making self-efficacy is 32% only. Although the findings are statistically significant, the results suggest that factors other than family functioning may also contribute to students' confidence in making career decision.

DISCUSSION

Family Functioning and Career Decision-Making Self-Efficacy

This study indicates that the mean scores for the total sample in six family functioning areas (i.e., Problem Solving, Communication, Roles, Affective Responsiveness, Affective Involvement, Roles, and Behavior Control) exceed the cut-off score ($M = 2.00$) suggested by the developers of the instrument. Affective Responsiveness has the highest mean score ($M = 2.37$) while Problem Solving has the lowest mean score ($M = 2.06$). This suggests that participants perceive their families as having difficulties in all areas. The mean scores and standard deviations of all six areas are not very different. There is not much variability in the scores. The closeness of the mean scores and standard deviations suggest that Malaysian families, on average, regardless of their ethnic backgrounds share the same values and beliefs regarding their family interaction patterns. It is interesting to find that the Problem Solving dimension (family's abilities to solve family problems) has the lowest mean score while Affective Responsiveness, which examines families' abilities to respond to a given stimulus with the appropriate quality and quantity of feelings, has the highest mean score. A low score in the Problem Solving dimension suggests that families are focusing more effort on finding solutions and making decisions when a problem situation occurs in the family. A high score in the Affective Responsiveness dimension indicates that affective responses are given less attention by families compared to other dimensions. These results may imply that for Malaysian families, solving problems is considered important to maintain healthy family functioning. However, from the McMaster Model of Family Functioning perspective, they still have low ability to resolve most problems efficiently and easily

because their average score exceeds the cut-off score. On the other hand, the finding that Malaysian families give less attention to Affective Responsiveness is not surprising because it is not part of Malaysian culture to show feelings through action. As Asians, traditional culture would influence many of them to think that it is improper to display their feelings and they should mask their emotional responses. This response does not mean that they are insensitive; they may prefer to convey their responses in nonverbal ways.

Like the FAD, the mean scores and the standard deviations of all CDSE-SF subscales are also close to each other. Specifically, the mean scores show that their confidence in making career decisions are between moderate and much confidence, with confidence in assessing their abilities to make career-related decisions being the highest and confidence in facing and solving career-related problems being the lowest. The findings indicate that first year students are confident that they can accurately assess their abilities in making career decisions, determine the ideal occupation and what they value most in an occupation, and figure out what they are ready or not ready to sacrifice to achieve their career goals which will define the lifestyle they will like to live. In Malaysia, admission to public universities is very competitive. This may lead some students to believe that once they accept the offer to further their study at a public university, they will have the qualifications to enter their dream career or occupation. The belief may explain why their confidence in self-appraisal is the highest among other four areas. On the other hand, their confidence in facing and solving career-related problems is not as high as confidence in other career decision-making areas because generally for many first year students in Malaysia, they still depend on others (e.g., family, friends) to

resolve any career issues that they may face. Examples of career related problems include changing majors if they do not like the first choice, changing occupations if they are not satisfied, and identifying some major or career alternatives if they are unable to get their first choice. Some of these problems, such as changing major, usually cannot be resolved because it is not allowed in public universities. The only way to resolve the problem is by furthering their studies in private institutions, which most students are reluctant to do. The limited options may explain why their confidence in solving career-related problems is lower compared to confidence in other four areas. Some of the career related problems may be resolved if they seek help from professionals, such as counselors and academic advisors. However, seeking professional help is not common among students in Malaysia.

Relationship between Family Functioning and Career Decision-Making Self-Efficacy

The results of this study show that certain family experiences impact the confidence level of college students in making career decisions. The results reveal some similarities with some findings of previous studies. As in this study, most of those studies also used family systems theory as a basis to understand the role of family functioning or family dynamics in career development (Bratcher, 1982; Hall, 2003; Lopez & Andrews, 1987; Zingaro, 1983). The studies provide support to the theoretical contention that family functioning plays a role in the career development process. Specifically, the results indicate that students' perspectives regarding their family's abilities to solve family problems, the effectiveness and content information exchange among family members, the patterns of behavior for handling family functions, family's ability to

experience appropriate affect to environmental stimuli, and the degree of interest and affection placed on each other are related to five career decision-making self-efficacy areas. Those areas are confidence in assessing the ability to make career-related decisions, finding occupational information, selecting career goals, making a career plan, and solving career-related problems. However, the relationship between family's ability to experience appropriate affect to environmental stimuli and the confidence in finding occupational information and deciding upon a major are negligible.

Problem Solving or the ability to resolve family problems are necessary for effective family functioning. The relationship between the ability to resolve the family's problems and the confidence in making career decisions and career plans suggests that families' abilities to deal effectively with problems are crucial for young adults' future decisions. Family problems can be divided into two types: instrumental and affective (Epstein, Ryan, Bishop, Miller, & Keitner, 1993). Examples of instrumental problems are problems related to food, money, transportation, and shelter. Examples of affective problems are any issues related to emotion or feelings such as anger and depression. A healthy family must be able to deal effectively with these problems in order to help the children plan for their future. Although not all issues become the family's problem, any issues that threaten the function of the family should be resolved. The finding also suggests that if families are able to deal effectively with the problems, children may learn effective problem solving skills from the process. They may apply the skills to solve other real life problems, such as making career plans and career decisions.

Collectively, these findings suggest that perceived quality of family functioning may play a small, yet important role in college students' confidence in engaging in

developmentally appropriate career developmental tasks. These small relationships also suggest that factors other than family functioning variables may also contribute to individual differences in the career decision-making self-efficacy. The analysis also indicates that the effect of the six family functioning areas on career decision-making self-efficacy is small. Several questions remaining to be answered: What is the main factor that may have contributed to this outcome? While it might be true that their families are having difficulties in the six functioning areas, there are several questions that need further investigations: Does each item measure family functioning from a Malaysian perspective? Do negative items that are considered negative from Euro-American perspective considered negative from Malaysian perspective? One possibility to consider is that the particular instrument (FAD) may not be suitable for Malaysian culture. In other words, the FAD may not be a good measure of family functioning for Malaysians. Although the FAD has been used in cultures other than United States (Keitner et al., 1991), there were some concerns that its validity in cross-cultural study remains to be demonstrated (Roncone et al., 1998; Shek, 2002). There is no specific discussion on the psychometric properties of the FAD in the Malaysia culture. In fact, there have been few published studies on family assessment tools in the Malaysian culture. Obviously, an examination of the psychometric properties of the FAD in the Malaysian context is an important step to determine the cultural validity of the FAD. As pointed out by Leong et al. (2004), appropriate measures that are culturally sensitive should be explored and established rather than reevaluating the existing measures. Specifically, the cultural validity of the standardized instruments that were developed in the West and tested on Malaysians should be further examined in future studies. In other

words, more effort should be directed towards developing a measure of family functioning that is culturally consistent with the population being studied.

Finally, although the findings suggest that family functioning contributes to career decision-making self-efficacy, other important family variables that may also play an important role in career decision-making self-efficacy from a Malaysian perspective are not addressed by the FAD. Example of family variables that might be considered in future studies are parental marital status, standard of living, and attachment and relationships with siblings and extended family members, family composition, and birth order. These variables are considered important to Malaysian families because they can affect the way a family functions. The FAD also has never been used in a study that links career development with family functioning. Future research on the topic of career development and family functioning (or family dynamics) must address the measurement issue.

RECOMMENDATIONS

Recommendations for Practice

The findings of the study indicate that students' confidence in their ability to perform career decision tasks are between moderate and high. The results suggest that there is a need for enhancing students' career decision-making self-efficacy because numerous studies have found that the confidence was significantly associated with career indecision (Betz et al., 1996; Betz & Vuyten, 1997; Taylor & Popma, 1990), vocational congruence (Luzzo & Ward, 1995), career maturity (Luzzo, 1995), career locus of control (Luzzo et al., 1996), career decision outcome expectancies and career exploration (Betz

& Voyten, 1997), career decision-making styles (Niles et al., 1997; Mau, 2000), patterns of career choice (Gianakos, 1999), career commitment (Chung, 2002), and career decision-making difficulties (Morgan & Ness, 2003). These relationships show the importance of self-efficacy in the career decision-making process. Since academic major at the university level is determined by students' academic program at the secondary school level, any steps to improve students' confidence in career decision-making should not ignore the role of school counselors. An information database that provides information about academic major and occupations related to the major should be established at the school level to promote awareness and improve students' confidence in making career related-decisions. Currently, information regarding academic major and job market is not sufficiently provided in Malaysia to secondary school students, especially students in the rural areas.

Although most secondary schools that are fully funded by the government provide counseling services to students, career counseling is not among these important services. Government financial support to improve career counseling is needed at the school level. This is necessary since students are not able to change their majors once they are accepted by public higher education institutions.

This study shows that the relative contribution of family functioning variables to career decision-making self-efficacy is relatively small. Despite this limitation, the results support the influential role of family functioning in the career development of traditionally aged college students. Undergraduate students struggling with career and vocational issues may benefit from career interventions that take into account the family dynamics that affect the decision-making process. In addition to the traditional form of

career counseling, it is recommended that college counselors use family systems theory to assess any functional or dysfunctional functioning patterns that are likely to affect career choices. As proposed by Whiston (1989), the formation of groups, comprised of traditional career counseling and family therapy techniques, in which parents are invited to participate, is one of the techniques that counselors can use. Such a group could provide techniques for parents to facilitate their children's career development process. The process will also help students understand how their families encourage or discourage their career choices. The formation of the group is also useful if counselors want to interview and observe the family directly. Observation during the group sessions helps counselors find clues about the quality of family functioning (Morrow, 1995).

Sometimes it may be difficult to invite family members to attend such counseling sessions. Many students are first-generation college students who come from rural areas and going to the university counseling center is an obstacle to their families. In that case, counselors should consider sending questionnaires that are systemic in nature and unique to family members. At the same time, students are asked to complete a questionnaire that is designed to assess the kinds of issues related to students' family functioning. One recommendation for counselors is to consider other methods of obtaining information, such as utilizing genograms (Bradley & Mims, 1995; Chope, 2002), family lifeline, and family homework (Morrow, 1995). The genogram allows for the exploration of current, historical, and multigenerational career development patterns (Chope, 2002). Family lifeline is a single line drawn horizontally where major life events are marked along the line chronologically. As homework, students are asked to interview their family members about their work and career experiences. The information collected should then be

discussed in individual sessions and enables counselors to help their clients in making meaningful career decisions. Small group counseling can also be conducted to discuss the information in which students help each other in dealing with family related issues that may affect their confidence in making career decisions.

Results of the current study suggest that the quality of family functioning, especially the ability to solve family-related problems, has an important role in students' career decision-making self-efficacy. Thus, it may be advisable for counselors to explore the problem-solving skills of their clients' families. If family members agree to join any of the counseling sessions, students and their families may discuss further steps to improve their abilities in problem solving, which will facilitate the students' career development process.

In summary, counselors may obtain a clearer picture of the factors influencing students' career development by understanding the family functioning. Counselors' ability to think systemically will assist clients who are unconsciously bound by family forces to choose a career that "can provide independence and autonomy as well as satisfaction and fulfillment" (Bratcher, 1982, p. 91) to themselves and their families. These functioning patterns may interact with other cultural factors, such as ethnicity and social class. Counselors are recommended to take into account these cultural factors because culture plays a major role in the Malaysian society.

Recommendations for Future Research

The present study has several limitations that may prove constructive in directing future research. First, the amount of variance related to career decision-making self-

efficacy that was accounted for by the six family functioning dimensions was relatively small. As indicated previously, the strongest predictor (Problem Solving) accounted for only 10% of the variance. Other predictors contributed less than 10% of the variance. The total variance accounted for by the six subscales was only 32%. Therefore, although the findings suggest that family functioning is related to confidence in making career decisions, the level of importance needs to be studied further. Future researchers should also investigate whether or not additional mediating variables are affecting this relationship.

Second, the present study used a standardized instrument (i.e., FAD), that measures only six dimensions of family functioning. Although the instrument seems to measure wide range of aspects of family functioning, there may be other family functioning variables that play an important role in Malaysian undergraduate career development that have been ignored. If we add other family variables, such as parental marital status, standard of living, and attachment and relationships with siblings and extended family members, into further studies, more outcomes that help us understand the role of family dynamics may be revealed. Family composition and family member configurations (e.g., birth order) also merit further inquiry.

Third, the findings of the present study reinforce the need to validate Western assessment measures when they are translated into other languages and used in a non-Western population. This is important because the dimensions of family functioning in Malaysian culture might differ from those listed in the original English version.

Fourth, the present study focused only on the role of family functioning on career decision-making self-efficacy. The role of family functioning on other factors, such as

career decision-making difficulties and vocational identity, could be investigated by future researchers.

Fifth, the study used self-report methodology without any external corroboration. Thus, the findings are limited to what were included in the self-report measures. Future research needs to address this limitation. Longitudinal studies using self-report measures combined with other research methods, including qualitative methods (e.g., interviewing family members, observations of family interaction patterns), would be likely to reveal more outcomes that may be useful in understanding career development process of young adults. Future studies might also gather information from both students and parents to gain a multi-perspective view on family functioning.

Sixth, only first year undergraduate students were included as participants in this study. Future research should include participants prior to their attendance at the tertiary or post-secondary level, as well as participants in various stages of their education. It is also important to include students beyond first year university. Future researchers may also consider investigating the impact of family functioning on the career development of other young adults who may not have the opportunity to further their studies at the college level. Although it is important to understand the role of family functioning in the career development of a college population, this group of young adults may not be representative of those affected by unhealthy family functioning (Johnson et al., 1999).

Finally, participants of this study consisted of students from the three main ethnic groups (i.e., Malay, Indian, and Chinese). Future research might consider studying other minority groups in Malaysia, such as the indigenous people and the aborigines.

Qualitative approaches might be used because there may be only a small number of these students in Malaysian public universities.

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