



**CAREER DECISION-MAKING SELF-EFFICACY AND DECISION-MAKING STYLE
OF ADOLESCENTS AT SENIOR SECONDARY LEVEL**

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Abstract

The present study explored the career decision-making self-efficacy and decision-making style among senior secondary school students. The sample comprised 250 students (132 boys and 118 girls) from Government schools of Chandigarh. Keeping in view the nature of the study, the descriptive method was chosen and the data were collected through survey method by using Career Decision-Making Self-Efficacy (CDMSE) scale and Adolescent Decision-making Style (ADMS) questionnaire. The results of the study revealed positive and significant relationship between adjusted decision-making style i.e. self-confidence with career decision-making self-efficacy and negative significant relationship between unadjusted decision-making style i.e. panic, avoidance and impulsive. It signifies that the students who were self-confident, less panicky, not tend to avoid making decisions and less impulsive are more confident in making career decisions. Medical students were more confident in making career related decisions as compared to their counterparts from other academic streams.

Keywords: *Career decision-making self-efficacy, Decision-making style, Senior secondary school students*

Introduction

Self-efficacy refers to an individual's beliefs about his/her ability to perform a behavior that will produce desired outcomes. Bandura (1977) suggested that individuals who perceive themselves as capable tend to attempt and successfully execute tasks or activities. Self-efficacy beliefs are defined as an individual's judgments about his or her capabilities to organize and execute courses of action required to attain designated performances (Bandura, 1986). Researchers have created strong support for the effect of self-efficacy on the career decision-making process of individuals since the distinctive study by Betz and Hackett (1981), which tried to explain the notion of career-related self-efficacy (Brown et al., 1999; Multon et al., 1991).

Career decision-making self-efficacy is an individual's belief that she or he can complete specific tasks related to making a career decision. Researchers have reported that high perceived career decision-making self-efficacy was related to career decidedness (Robbins, 1985) and low levels of career indecision (Gloria & Hird, 1999; Osipow, 1998). The correlates of career decision-making self-efficacy that have been examined include mathematics self-efficacy, generalized self efficacy and global self-esteem (Betz & Klein, 1996), college major indecision (Bergeron & Romano, 1994), patterns of career choice development (Giannakos, 1999), occupational barriers (Luzzo, 1996), and career maturity (Luzzo, 1993). In these studies, researchers found that career decision-making self-efficacy was moderately related to educational indecision (Bergeron & Romano, 1994) with a sample of undergraduate students and is negatively related to high school students' perceived barriers to postsecondary education and training (McWhirter et al., 2000). Self-efficacy means how better a person will act in challenging situation. A person's self-efficacy is a strong determinant of their effort, determination; strategizing as well as their performance (Heslin & Klehe, 2006). Self-efficacy is the strength of one's belief in one's own ability to complete a task and to achieve goals. Decisions about choice of career are highly connected to education and training, and, in turn, educational training influences the career options that are available for an individual. Hence, it is important to build on the prior career decision-making self-efficacy research and to extend understanding of its relation to decision-making style.

Decision-making is the process in which individuals determine alternative actions, evaluate them and choose one of these alternatives to apply. The decision making process is directly linked with the need for problem solving. The right choices we make in solving problems and making decisions depends on how correctly we follow the steps through in the decision making process. Kneeland

(2001) states that in order to make a useful or effective decision, timing and decision-making-processes must be implemented correctly. Adair (2000) emphasizes that the purpose should be determined first during the decision making process. The process of decision making depends on many factors, including the context in which a decision is made, the decision maker's way of perceiving and understanding cues, and what the decision maker values or judges as important (Rowe & Boulgarides, 1994). Inclination to one of the several choices is a cognitive and complex process or individuals. In order to make an effective and healthy decision, this cognitive process should be carried out. Choices should be evaluated effectively before making a decision (Eldeleklioğlu, 1996; Kuzgun, 2000; Yeşilyaprak, 2003). Decision-making style as a cognitive construct has been shown to represent a unique component of vocational behavior and career development (Harren, 1979; Jepsen & Prediger, 1981; Super, 1980).

Decision making style is called a situation which includes the approach, reaction and action of the individual who is about to make a decision (Phillips, Paziienza, & Ferrin, 1984). Decision-making style has been defined as a habitual pattern individuals use in decision-making (Driver, 1979) or individuals' characteristic model of perceiving and responding to decision-making tasks (Harren, 1979). Scott and Bruce (1995) defined decision-making style as the learned habitual response pattern exhibited by an individual when confronted with a decision-situation. Thunholm (2004) investigated the relationship between decision-making styles, self-esteem and self-regulation and suggested that decision-making style is not a skill but rather a process that involves self-evaluation as well as the capability to initiate and maintain self regulation.

There were very few studies that examined relations between these two important constructs. Blustein (1989) investigated the relation between career decision-making self-efficacy and the extent of career exploratory behavior. Findings suggested that the more confidence people have in their decision-making capacities, the more likely that they will seek information about their respective career options. Career exploratory behavior resembles career decision-making style in that they both involve information-processing. Mau (1995) examined the relationship of two important cognitive constructs of career decision-making style with career decision-making self-efficacy and indicate that the effectiveness of a decision-making style may be situational, depending on the personal/ cultural factors as well as on the decisional tasks under study. Singh and Bhalla (2013) investigated the career decision-making self-efficacy among senior secondary school students. The purpose of the study was to compare decided and undecided students as well as boys and girls on career decision-making self-efficacy of senior secondary school students. The

finding of the study showed significant difference in decided and undecided students in career decision-making self-efficacy and boys were found more confident in making career related decisions than girls. Kaur and Bala (2016) analyzed the relationship between decision making styles and self-efficacy of secondary school students and found that with increase of self-efficacy, there will be increase in decision-making styles of students. So, these two cognitive variables are important in resolving career indecision and a major concern of career psychologists.

The purpose of present investigation was twofold: (1) to examine the relations between career decision-making self-efficacy and decision-making style and (2) to determine if the relation is constant for students with academic streams i.e. medical, non-medical, commerce and arts. Accordingly, the present study also examined gender differences in career decision-making self-efficacy and decision-making style.

Objectives of the study

- To find out whether gender differences exist in career decision-making self-efficacy of adolescents.
- To find out whether gender differences exist in decision-making style of senior secondary school students.
- To find out whether career decision-making self-efficacy will differ in case of medical, non-medical, commerce and arts students.
- To find out whether decision-making style will differ in case of medical, non-medical, commerce and arts students.
- To find out relationship of career decision-making self-efficacy with decision-making style in case of senior secondary school students.

Hypotheses of the study

- There exists no significant gender difference in career decision-making self-efficacy of senior secondary school students.
- There exists no significant gender difference in decision-making styles of senior secondary school students.
- There exists no significant difference between career decision-making self-efficacy of medical, non-medical, commerce and arts students.
- There exists no significant difference between decision-making style of medical, non-medical, commerce and arts students.

- There exists no significant relationship between career decision-making self-efficacy and decision-making style of senior secondary school students.

Method

The present study was conducted to study the decision-making style of senior secondary school students in relation to their career decision-making self-efficacy. The study involves the comparison of adolescents on the variables of career decision-making self-efficacy and decision-making style based on gender i.e. boys/girls and stream i.e. medical/non-medical/commerce/arts. The method of investigation was thus descriptive, analytical survey coupled with the techniques of comparison, t-test and one-way ANOVA to compare between the groups. The study was also co-relational in approach. It aimed at exploring correlation between the variables of career decision-making self-efficacy and decision-making style.

Sample and Sampling Procedure

In the present study, the sample comprised 250 senior secondary school students (class XII) studying in the Government senior secondary schools of Chandigarh. The representativeness of the sample was ensured with respect to class and availability of medical, non-medical, commerce and arts streams. Multi-stage random sampling technique was employed for a more comprehensive investigation.

Instruments

Career Decision-Making Self-Efficacy Scale Short Form-CDMSE-SF (Taylor & Betz, 1983):

The career decision-making self-efficacy scale was used to measure an individual's degree of belief that he/she can successfully complete tasks necessary to making career decisions. The five subscales included behaviors pertinent to: self-appraisal, gathering occupational information, goal selection, making plans for the future and problem solving.

Adolescent Decision-Making Style (ADMS): The Adolescent Decision-Making Style (ADMS) is a self-made questionnaire includes 54 items that refer to the ways people usually make decisions. It measures four decision making styles: one adjusted style – self confidence, and three unadjusted styles (avoidance, panic and impulsive decision making). Students were asked to complete items on a four-point rating scale, where 1 = never true for me, 2 = sometimes true for me, 3 = often true for me and 4 = always true for me.

Results and Discussion

To analyze the data various statistical techniques such as descriptive statistics as mean, standard deviation were used to find the nature and distribution of variables. 't'-ratio was used to find out the difference between boys and girls and ANOVA was used to find out the difference between medical, non-medical, commerce and arts students. The bivariate coefficients of correlation were used to explore the relationship between career decision-making self-efficacy and decision-making style of students at senior secondary school level.

Table 1: Comparison between Boys and Girls on the variables of Career Decision-Making Self-Efficacy and Decision-Making Style

Variables	Boys	Girl	Boy	Girl	't' ratio
	s	s	s	s	
	Mean		S.D.		
Career Decision-Making Self-Efficacy					
Self Appraisal (SA)	3.76	3.70	0.69	0.62	1.07
Occupational Information (OI)	3.70	3.54	0.64	0.65	2.91**
Goal Selection (GS)	3.64	3.52	0.69	0.63	2.08*
Planning (PL)	3.70	3.49	0.66	0.70	3.55**
Problem Solving (PS)	3.36	3.31	0.62	0.63	0.92
CDMSE	3.63	3.51	0.53	0.53	2.67**
Decision-Making Style					
Self- Confidence (SC)	2.72	2.68	0.44	0.42	1.07
Panic (P)	2.27	2.29	0.36	0.33	0.71
Avoidance (Avd)	2.10	2.08	0.50	0.44	0.59
Impulsive (Imp)	2.24	2.13	0.37	0.35	3.24**

* Significant at 0.05 level (1.96)

** Significant at 0.01 level (2.58)

Discussion based on Table 1

Table 1 shows the comparison between boys and girls on the variables of career decision-making self-efficacy and decision-making style. On the variable career decision-making self-efficacy, the dimensions i.e. occupational information (2.91), goal selection (2.08), planning (3.55) and overall career decision-making self-efficacy (2.67) was significant at .01 and .05 levels favouring boys. On the variable of decision-making style, impulsive style was found to be significant (2.67) at 0.01 level of significance. It reveals that there was significant difference between boys and girls on the variables of occupational information, goal selection, planning of career decision-making self-efficacy and impulsive decision-making style. The mean scores show that boys were found to have an edge in career decision-making self-efficacy compared to girls. It depicts that boys are more confident in obtaining information regarding different careers, to select their goals, make plans to implement decisions and to select appropriate career and are confident to solve their problems to make relevant career decisions as compared to girls. On the variable of decision-making style, the mean scores exhibit that girls were taking panicky decisions whereas boys were more impulsive and make their decision on the basis of what other people suggest to them as compared to girls. Mau (1999) also found similar results that the male Taiwanese students scored significantly higher than female Taiwanese students in decision-making self-efficacy and also suggested that females were more likely than males to endorse a dependent decision-making style.

In order to find out the significance level of difference between the students pursuing medical, non-medical, commerce and arts streams on the variables of career decision-making self-efficacy and decision-making style, one-way ANOVA was employed. The mean and standard deviation of medical, non-medical, commerce and arts students on the variables of decision-making style and career decision-making self-efficacy are presented in Table 2 and one-way ANOVA of these streams vide Table 3.

Table 2: Means and S.D's of the Medical, Non- Medical, Commerce and Arts groups on the Variables of Career Decision-Making Self-Efficacy and Decision-Making Style

	Medical		Non-Medical		Commerce		Arts	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Career Decision-Making Self-Efficacy								
Self Appraisal	4.09	0.57	3.94	0.66	3.82	0.61	3.35	0.52
Occupational Information	3.78	0.70	3.83	0.62	3.71	0.57	3.33	0.61
Goal Selection	3.97	0.65	3.68	0.72	3.57	0.67	3.33	0.49
Planning	3.89	0.71	3.75	0.67	3.60	0.68	3.31	0.60
Problem Solving	3.40	0.69	3.39	0.64	3.42	0.61	3.21	0.59
Career Decision-Making Self-Efficacy	3.82	0.54	3.73	0.56	3.62	0.51	3.56	0.53
Decision-Making Style								
Self- Confidence	2.73	0.46	2.79	0.43	2.76	0.45	2.57	0.35
Panic	2.23	0.31	2.18	0.35	2.28	0.40	2.37	0.29
Avoidance	1.96	0.39	1.91	0.44	2.08	0.47	2.27	0.45
Impulsive	2.13	0.30	2.18	0.42	2.13	0.41	2.22	0.29

Table 3: One-way ANOVA on the variable of Career Decision-Making Self-Efficacy of Medical, Non-medical, Commerce and Arts Students

Variables	Source of Variation	Sum of Squares	Df	Mean Squares	F-ratio
Career Decision-Making Self-Efficacy					
Self-Appraisal (SA)	Between Groups	43.384	3	14.461	42.23**
	Within Groups	181.155	529	0.342	
	Total	224.539	532		
Occupational Information (OI)	Between Groups	24.889	3	8.296	21.902**
	Within Groups	200.384	529	0.379	
	Total	225.273	532		
Goal Selection (GS)	Between Groups	24.688	3	8.229	21.181**
	Within Groups	205.53	529	0.389	
	Total	230.219	532		
Planning (PL)	Between Groups	24.911	3	8.304	19.355**
	Within Groups	226.942	529	0.429	
	Total	251.853	532		
Problem Solving (PS)	Between Groups	4.619	3	1.54	3.973**
	Within Groups	205.015	529	0.388	
	Total	209.634	532		
Career Decision-Making Self-Efficacy (CDMSE)	Between Groups	21.565	3	7.188	29.241**
	Within Groups	130.043	529	0.246	
	Total	151.608	532		

Note: * Significant at 0.05 level (2.54) ** Significant at 0.01 level (3.73)

Discussion based on Table 2 and 3

From Table 3, it is evident that the F-ratio of total career decision-making self-efficacy was found to be 29.241 (self-appraisal, 42.23; occupational information 21.902, goal selection, 21.181, planning, 19.355, problem solving 3.973) which is highly significant at 0.01 level of significance. The mean scores as depicted in Table 2 revealed that the total score on career decision-making self-efficacy of medical, non-medical, commerce and arts students were 3.82, 3.73, 3.62 and 3.59 respectively which shows that medical students were more confident in appraising their own self, gathering occupational information, selecting goals, making and implementing plans, solving career-related problems and hence make relevant career decisions as compared to their counterparts from non- medical, commerce and arts students.

Table 4: One-way ANOVA on the variable of Decision-Making Style of Medical, Non-medical, Commerce and Arts Students

Variables	Source of Variation	Sum of Squares	df	Mean Squares	F-ratio
Decision-Making Style					
Self-Confidence (SC)	Between Groups	4.635	3	1.545	8.972**
	Within Groups	90.918	529	0.172	
	Total	95.553	532		
Panic (P)	Between Groups	2.753	3	0.918	8.049**
	Within Groups	60.209	529	0.114	
	Total	62.962	532		
Avoidance (Avd)	Between Groups	11.795	3	3.932	19.87**
	Within Groups	104.672	529	0.198	
	Total	116.467	532		
Impulsive (Imp)	Between Groups	0.808	3	0.269	2.093
	Within Groups	67.952	529	0.129	
	Total	68.76	532		

Note: * Significant at 0.05 level (2.54) ** Significant at 0.01 level (3.73)

Discussion based on Table 4

Table 4 shows the F-value for medical, non-medical, commerce and arts students on the variable of decision-making style. The F-ratio on the adjusted decision-making style i.e. self-confidence was found to be 8.972 and on unadjusted decision-making style i.e. panic and avoidance it was 8.049 and 19.87 respectively which is significant at 0.01 level. The value of mean vide Table 2 indicate that non-medical students exhibited adjusted decision-making style that shows they were more self-confident compared to students belonging to rest of the academic streams. On unadjusted decision-making style, arts group was found to be more panic-stricken, avoided to take decisions and was impulsive than student pursuing medical, non-medical and commerce streams.

Table 5: 10x10 Correlation Matrix between Career Decision-Making Self-Efficacy and Decision-Making Style of Senior Secondary School Students

	SC	P	Avd	Imp	SA	OI	GS	PL	PS	CDMSE
SC	1									
P	-.465**	1								
Avd	-.400**	.533**	1							
Imp	0.015	.216**	.215**	1						
SA	.471**	-.434**	-.354**	-.106*	1					
OI	.376**	-.420**	-.216**	-.09**	.639**	1				
GS	.436**	-.374**	-.412**	-.097*	.666**	.511**	1			
PL	.413**	-.449**	-.381**	-.090*	.664**	.641**	.702**	1		
PS	.395**	-.336**	-.172**	0.033	.509**	.472**	.439**	.469**	1	
CDMSE	.512**	-.494**	-.379**	-.092*	.853**	.801**	.817**	.857**	.709**	1

Discussion based on Table 5

Table 5 revealed that there was positive and significant correlation between total career decision-making self-efficacy with adjusted decision-making style i.e. self-confidence ($r = 0.512$) at 0.01 level. It shows that adolescents who were self-confident have more belief in themselves to make career related decisions.

The correlation between total career decision-making self-efficacy with unadjusted decision making style i.e. panic, avoidance and impulsive were found to be -0.494, -0.379 and -0.92 respectively which shows negative but significant correlation at 0.01 level. Negative correlation in the present investigation shows that the adolescents who were less panicky, who do not tend to

avoid decisions and were not much impulsive had more confidence in themselves in making career related decisions.

Thus, adolescents who were self-confident, less panicky, did not avoid decision making and not much impulsive are more confident in appraising their own self, gathering occupational information, selecting their goals, making and implementing career plans, solving problems in making career-related decisions.

Main Findings

- Boys and girls differ significantly on the variables of occupational information, goal selection, planning and total career decision-making self-efficacy. However, no significant difference was found in self-appraisal and problem solving between boys and girls.
- Boys in the present study were more confident in gathering occupational information, selecting their goals, making plans and making career decisions as compared to girls.
- Boys and girls did not differ significantly in decision-making style of self-confidence, panic and avoidance but significant difference was observed in case of decision-making style favouring girls. Girls hence in this study were found to be more impulsive in making decision than their boys' counterparts.
- The total score on career decision-making self-efficacy of medical, non-medical, commerce and arts students differed significantly with respect to self-appraisal, occupational information, goal selection, planning and problem solving.
- Medical students were found to be more confident in appraising their own self, gathering occupational information, selecting goals, making and implementing plans, solving career-related problems and hence they are able to make rational career decisions as compared to their non- medical, commerce and arts students counterparts.
- Students with academic streams i.e. medical, non-medical, commerce and arts differed significantly with regard to self-confidence panic and avoidance decision-making style but they did not differ significantly with regard to the impulsive unadjusted style.
- Non-medical students were higher on adjusted decision-making style which means they were more self-confident; while arts group were higher on unadjusted style. It indicates arts group was more panic-stricken, impulsive and avoid making decisions than medical, non-medical and commerce group in the present sample.

- The career decision-making self-efficacy was found to be positively and significantly correlated with adjusted decision-making style i.e. self-confidence. It depicts that students who were self-confident are more confident in career decision-making.
- Negative significant correlation was found between total career decision-making self-efficacy with unadjusted decision-making style i.e. panic, avoidance and impulsive. It shows that students who were less panicky, impulsive and those who are not avoiding decisions and are less impulsive are more confident in making career decisions.

Educational Implications

From a research perspective, these findings are useful to include decision-making style and career decision-making self-efficacy variables in further research on the career development of students. This study has made an important contribution to the literature by teasing out the causal relationship between decision-making style and career decision-making self-efficacy. It is important that the career counselors, teachers, educators take the relationship into consideration and the differences in the students approach to decision-making style. Being aware of the different styles a person could adopt in his/her decision-making approaches and being sensitive to the counseling. The adjusted decision-making style could be positively linked to self-efficacy belief in career decision making while unadjusted decision-making style may create adverse effects or negative social consequences. Instead of endorsing a single style, it may be appropriate for counselors to help individuals develop different styles that are situationally appropriate (Mau, 1995).

The conclusions drawn are tentative due to some limitations of this study. Future research could identify and explore other antecedents and outcomes of career decision-making self-efficacy and decision-making style. One way to assist students who are at risk for vocational difficulties might be to enhance career decision-making self-efficacy (O'Brien, Dukstein, Jackson, Tomlinson, & Kamatuka, 1999). The present study represents only a beginning in the exploration of the relationship between these two variables on career decision-making processes. It is recommended that career development in schools should encompass introduction of career awareness activities, career exploration and career preparation. This would help reduce gender stereotypes, , enhance awareness of their own self, occupations and career decision making process, promote decision making skills and overall generate confidence in the students to make informed, rational and make appropriate career decisions during secondary level.

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