

Career Decision Self-Efficacy and Related Socio-demographic Factors among Undergraduate Students

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Abstract

The current research explored career decision self-efficacy among undergraduate students in relation to socio-demographic factors. A total sample of 300 undergraduate students was selected from universities and colleges, located in Islamabad, through purposive sampling. Career Decision Self-Efficacy Scale along with a socio-demographic sheet was used to collect data. Findings of the study revealed that intermediate students and those belonging to colleges have significantly high level of career decision self-efficacy (CDS) as compared to bachelor students and those studying in universities. Moreover students belonging to public institutions have significantly greater level of CDS as well as planning as compared to private institution students. However contrary to the hypothesis, no significant difference gender differences were found on CDS. Majority of students in the sample reported to experience the need for career counseling to be better able to make right choices. The findings from this study can be useful for students, parents, and career counselors to have a better understanding of the phenomenon and its related socio-demographic factors.

Key words: Career decision, Self-efficacy, Socio-demographic factors, Undergraduate students

Introduction

Making a decision about career choice is an important challenge is everyone's life. Career decision self-efficacy (CDS) is a person's confidence in one's capability to effectively accomplish tasks that are essential to make career related decisions. It is influenced by both individual variables (including ethnicity, gender, race etc.) and circumstantial factors such as experiences of learning and familial background (Tang, Pan, & Newmeyer, 2008).

Hackett and Betz (1981) are among the pioneers that suggest the association between vocational guidance and self-efficacy but now the idea has been studied under various studies. Betz and Hackett (1981) studied female

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socialization with regards to male dominated careers leading to low self-efficacy expectations, especially mathematics and sciences. The research proposed that the self-efficacy of the women was highly affected because of male dominated society and expectations. Another important finding of this research was that the low self-efficacy is the result of the low likelihood of women to opt the male dominant career by personal choice. This finding has supported the Bandura's (1977) approach of avoidance consequence to either perceived career options or career choices or actual educational choice by one's own self. Hence, this manufacture then accelerated numerous empirical and theoretical works in the field of vocational psychology later on.

A student's career self-efficacy is greatly influenced by his or her ethnic identity. Lewis, Raque-Bogdan, Lee and Rao (2017) while doing research with 2470 college students found that the students who come from diverse areas are more likely to be in the subjects that are not of their interests or choice. Whereas the students from less diverse areas were performing well and their CDS was slightly higher than others. Austin (2010) found socio-economic status one of the significant variable influencing CDS.

Self-related factors; self-esteem, self-regulation and self-efficacy has a great effect on decision choices of the early adults. Batool, Riaz, Akhtar and Riaz (2017) found a positive relationship between self-related factors and the decision choices. Strong self-efficacy beliefs could be one of the most influencing factors for career optimism (Garcia, Restubog, Bordia, Bordia & Roxas, 2014). Lent, Ireland, Penn, Morris and Sappington (2017) found, by a survey research using 235 university students with computer science major subject, that positive self-efficacy, teaching support and parental support works efficiently in career optimism.

Gushue, Scanlan, Pantzer, and Clarke (2006) observed that there is great possibility that people with higher social explorations and interactions have strong CDS. The individuals with more information and knowledge about

their personalities and career interest had higher self-efficacy. Those students were also found studying major of their interest and choice. Quantitative research on CDS has demonstrated that demographic variables such as educational institution, gender and family educational background of the students have great effect on the career self-efficacy of the students (Koukoli, Vlachonikolis, & Philalithis, 2002).

Very limited literature has been reported from Pakistan and it is very recently that CDS and its association with self-regulation (Kanwal & Naqvi, 2016) and emotional intelligence (Afzal, Atta, & Shuja, 2013) is studied. The socio-demographic correlates of CDS have rarely been studied.

The current study aims to find out CDS amidst undergraduate students in their late college and early university years. The study also intends to explore gender differences in regards to the level of CDS and its related components. The current investigation will also focus on whether getting education from different educational sectors, seeking help from counsellors before opting the careers, belonging to different socio-economic class, and having educated parents affects the students' decision making efficacy. Moreover it intends to find out if students feel a need for career counselling and whether students have chosen their subject according to personal choice, their family wishes or with mutual consent.

Results of the current study will be useful for students, parents, teachers, vocational counselors and educational institutions to better understand the phenomenon and association between CDS and related sociodemographic factors.

Hypotheses

The following hypotheses concerning the differences between groups on different socio-demographic factors were tested:

1. Male students will have greater level of CDS as compared to female students.

2. Students from private educational institute will have greater level of CDS than students from public educational institution.

Research Methodology

The researchers used a cross-sectional research design since different groups of students were contacted at a single point in time. The data for the study was collected through a survey technique by using a structured scale.

A total sample of 300 students was collected from public and private universities and colleges. Purposive sampling method was used while selecting both female and male participants. Only undergraduate students were included in the sample. The students were from late college year and early university years. Equal number of students was selected from private and public educational institutes. Less than half of the selected sample reported that they have not taken any prior consultation before opting their majors. Table 1 shows the demographic characteristics of the sample.

Table 1 : *Demographic Characteristics of the Sample (N=300)*

Demographic variables	Categories	Participants, n, (%)
Age (Years)	Range 16-23	$M=19.50$ ($SD=1.50$)
Gender	Men	157 (52.3%)
	Women	143 (47.7%)
Educational Degree	High School (College)	100 (33.3%)
	Bachelors (University)	200 (66.7%)
Major subject	Computer Science	82 (27.3%)
	Engineering	102 (34.0%)
	Management Science	40 (13.3%)
	Natural Science	76 (25.3%)
Prior career consultation	Yes	139 (46.3%)
	No	161 (53.7%)
Educational Institute	Private	150 (50.0%)
	Public	150 (50.0%)
Chose the major subject according to?	Family choice	51(17.0%)
	With mutual consent	94(31.3%)
	My own choice	155(52.8%)
	Last	112 (37.3%)
Socioeconomic Class	Upper	16 (5.3%)
	Middle	283(94.3%)
	Lower	1(0.3%)

Are you interested in	Yes	139 (64.3%)
what you are studying?	No	107 (35.7%)
Do you face difficulties	Yes	150 (50.0%)
with your studies?	No	150 (50.0%)
Do you need Career	Yes	177 (59%)
Counseling?	No	123 (41%)

Research Tools

The Career Decision Self-Efficacy Scale (CDSE), developed by Taylor and Betz (1983), measures the extent to which an individual believes that he or she is able to complete tasks that are essential to making significant career decisions successfully. The CDSE consists of a total of 50-items which are divided into five subscales, each evaluating the Crites' theory of career maturity's (1978) five career choice competencies. The current study used the short form of CDSE (Betz, Klein, & Taylor, 1996) which comprises of 25-items.

The 25 items of the short form of CDSE are equally divided amongst the five subscales. The total score of each subscale is the accumulation of the responses given to the five items designated to that subscale. The subscale 'Self-Appraisal' is a measure of confidence a person has about own self. The subscale 'Occupational Information' refers to the amount of information an individual has about his/her career or profession. 'Goal Selection' measures the degree of confidence the individual has to struggle to achieve a certain goal he/she has selected. The subscale 'Planning' measure that with how much confidence an individual plans to move forward in a certain career. Lastly 'Problem Solving' measures the degree of skills of a person that with how much confidence he manages to solve a particular problem faced during the process of making career decision. The total score is the sum of scores on 25 items and it ranges between 25-125. Greater scores indicate greater level of CDS. CDSE is strongly associated with positive career decisional and educational outcomes (Betz & Taylor, 2012).

The internal consistency for Career Decision Self-Efficacy scale was reported to be .94 for the 25 item and varied from .69 (Problem Solving) to .83 (Goal selection) for the subscales (Betz, Klein, & Taylor, 1996). The internal consistency in cross sectional studies was reported at the estimate of .88 (Miguel, Silva, & Prieto, 2013) whereas the internal consistency in recent Pakistani study was reported .83 (Kanwal & Naqvi, 2016).

To gather information about age, gender, education, major subjects, educational institution (college or university, public or private), birth order, socio-economic status, prior career counselling and further need for career counselling, a demographic data sheet was developed. Participants were also asked if they chose their subjects by themselves or according to their parent's preferences and if they are interested in the subjects they are studying.

Procedure

To collect the data from the specific university and college the head of institutes were emailed to get their permission to enter the premises of the educational institution and to get the data from the students. The information was collected through the survey research study. The students were ensured about their confidentiality while taking their consent. The participation of the students was completely voluntary. It took 10-15 minutes, at an average, for each student to provide the required information. The data was collected in the original language of the scale i.e. English.

Statistical Analyses

The statistical methods included calculation of frequencies, percentages, mean, standard deviations and *t*-test for independent sample. Reliability analysis of CDSE using Cronbach's alpha mainly constituted the preliminary data analysis. For the purpose of significance testing an alpha level of .05 was used.

Results

The Cronbach's alpha coefficients and descriptive statistics of the Career Decision Self Efficacy Scale (CDSE) and its subscales were calculated. The Cronbach alpha reached to a satisfactory level ranging from .72 (CDSE Total, Goal Selection) to .75 (Problem Solving, Occupational Information) (see Table 2).

Table 2

Alpha Coefficients and Descriptive Statistics of the CDSE Scale and its Subscales (N=300)

Scales	No of Items	<i>a</i>	<i>M</i>	<i>SD</i>	Score Range		<i>Skew</i>
					Potential	Actual	
CDSE (Total)	25	.72	85.37	10.04	25 – 125	52 – 109	-.58
Self-Appraisal	5	.74	17.13	2.74	5 – 25	8 – 22	-.52
Problem Solving	5	.75	16.39	3.09	5 – 25	10 – 24	-.24
Planning	5	.73	17.11	2.88	5 – 25	9 -- 24	.06
Goal Selection	5	.72	17.36	3.11	5 – 25	7 – 24	-.35
Occupational Information	5	.75	17.39	2.66	5 – 25	9 – 22	-.12

Level of CDS among Undergraduate Students

Percentiles and corresponding raw scores on CDSE scale were used for calculating the level of CDS and its component. Low level of CDS was indicated by scores that fell at or under the 25th percentile, moderate level was showed by scores that fell over 25th and under 75th percentile while high level of CDS was indicated by scores that fell at or above 75th percentile. For each category, the percentages and frequencies of participants who were falling against them were calculated.

From the results presented in Fig. 1 it can be seen that low level of CDS was found in a total of 25.33% of the selected sample while 49.67% of

the sample was found to have a moderate level of CDS. High level of CDS was found among 25% of the sample. Level of different components of CDS is also displayed in Fig. 1.

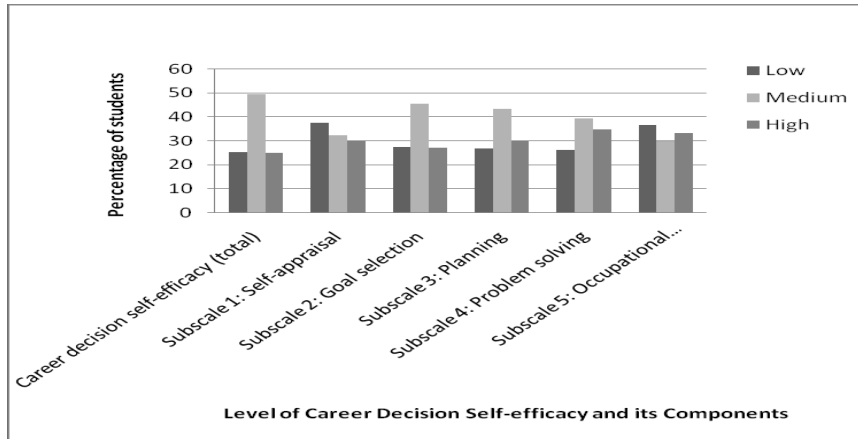


Figure 1. Percentage of undergraduate students having different levels of CDS and its components

Differences in CDS based on Socio-demographic Factors

Gender. Table 3 shows the gender-wise comparison on the CDS scale. The male students performed better on CDS scale however, this performance was not statistically significant.

Table 3: Gender-wise comparison on CDSE Scale and its Subscales (N = 300)

Scales	Male (n = 157)		Female (n = 143)		t (298)	p	95% CI	
	M	SD	M	SD			LL	UL
CDSE (Total)	86.20	10.01	84.47	10.02	1.49	.71	-.55	4.00
Self- appraisal	17.36	2.63	16.87	2.82	1.55	.75	-.13	1.11
Goal selection	16.57	3.07	16.24	3.10	1.79	.90	-.41	.98
Planning	17.40	2.89	16.79	2.83	.06	.63	-.04	1.26
Problem solving	17.55	3.19	17.15	3.01	1.13	.39	-.29	1.12
Occupational Information	17.36	2.67	17.42	2.64	-.20	.93	-.66	.54

College and university students. The table 4 shows the means, standard deviations and t-values of late college and early university year students on CDS scale and its subscales. The data shows that college students' have greater self-efficacy than the university students. The Cohen's *d* value for this difference is .24 which shows a small effect size. The table shows that college students have significantly higher goal selection than the university students. The Cohen's *d* value for this difference is .11. The college students have also higher occupational information than the university students, but this difference does not reach to a statistical significance.

Table 4: *College and University Students comparison on CDSE Scale and its Subscales (N = 300)*

Scales	College (n = 100)		University (n = 200)		<i>t</i> (298)	95% CI		Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>LL</i>	<i>UL</i>	
CDSE (Total)	86.93	7.53	84.60	11.01	1.90	-.07	4.74	-
Self- appraisal	17.56	2.34	16.92	2.89	1.93	-.01	1.30	-
Goal selection	17.59	2.67	17.25	3.30	.90*	-.40	1.09	.24
Planning	17.17	2.67	17.08	2.98	.25	-.60	.785	-
Problem solving	16.82	2.93	16.17	3.14	1.72	-.09	1.39	-
Occupational Information	17.79	2.30	17.19	2.80	1.86*	-.03	1.24	.11

**p* < .05

Students of public and private institution. The results of t-test presented in Table 5 show that the students belonging to public institute have higher self-efficacy than the students of private institution. The Cohen's *d* value for this difference is .08. Students of public institutions have a higher level of planning in comparison to students belonging to private institutions. The Cohen's *d* value for this difference is .07.

Table 5

Means, SD and t-values of Students Belonging to Private and Public Educational Institutes on CDSE Scale and its Subscales (N = 300)

Scales	Private Institute (n = 150)		Public Institute (n = 150)		t (298)	95% CI		Cohen's d
	M	SD	M	SD		LL	UL	
CDSE (Total)	84.97	10.75	85.78	9.28	.70*	-	1.47	.08
Self-appraisal	17.15	2.77	17.11	2.69	.10	-.58	.65	-
Goal selection	17.29	3.14	17.43	3.07	.40	-.85	.56	-
Planning	17.00	3.10	17.22	2.63	.66*	-.87	.43	.07
Problem solving	16.09	3.15	16.60	3.00	1.68	-.13	.10	-
Occupational Information	17.45	2.80	17.33	2.50	.39	-.48	.72	-

* $p < .05$

Prior career consultation. The result of t-test showed that the difference between students having prior career consultation and without prior career counselling in CDS is not statistically significant.

Socio-economic class and birth order. The results of one-way ANOVA showed no difference within the level of CDS of students belonging to different socioeconomic class and having varying birth orders.

Discussion

Level of CDS and its Components

Findings of the current study exhibited that one quarter of the sample had a low level CDS and about half of the sample had moderate level of career decision making self-efficacy. This finding reflects a lack of confidence among huge majority of undergraduate students regarding making a choice of an educational program, selecting a career and setting appropriate career goals. Low level of organization information was reported by more than one third of the sample. Students reported to experience difficulties in identifying, firms,

institutes and employers pertinent to their occupation possibilities. Moreover, identifying employment trends for a profession over the span of next few years is troublesome for them. They are equally bothered by the goal selection and necessary planning required to meet their career outcomes. According to the findings of the study, choosing a major that matches their interest and selecting a career that will be in accordance with their ideal lifestyle is quite challenging for them.

Differences in CDS based on Socio-demographic Factors

Gender. Contrary to the hypothesis, results of the current study showed that the difference in CDS of male and female students is not significant. This finding is backed up by a recent research by Chiesa, Massei and Gugleilmi (2016) which stated that trends have been changed and gender differences are merging by the passage of time. Moreover, it highlighted the need for professional career and vocational guidance for school students because it was found that both the gender experience more anxiety than motivation while making decisions for their career. Another study supported the current findings of the research that gender and racial differences do not affect career decision making. Another research conducted by Mau, Perkins and Mau (2016) to examine the enrollment of the students by their genders in science and technology institution. The results were found through applying social cognitive-career theory to examine the career decision making predisposition of the students. It was observed that due to the change in the current trends of education and society, the acceptance of students for both genders in the science and technology courses is same.

Public and private institution. The current study hypothesized that the students from private educational institute will have greater level of CDS than students from public educational institutions. This hypothesis was not supported by the data. This study found contrary to this. Students belonging to public institutions have significantly high level of CDS as compared to

students from private institutions. It was also found through the findings that students of public institutions have a higher level of planning in comparison to students belonging to private institutions. This finding is substantiated by a previous study by Fornaciari and Arbaugh (2017) which states that private school institutions are just a way of making money or a business. It does not make any significant impact on the success of the students. The results of the study helped to shape the framework of elite institution and government institution images among the society. The study claimed that the people who do not get private expensive education or proper vocational guidance can succeed and have better life. Another study by Chong and Ong (2016) reported that the type of school does not affect the performance of the students; it is the teacher's way of teaching and dealing with the students which help them to grow and have higher self-efficacy.

Socio-economic class. The current study also intended to identify whether student's career choices get affected because of their socioeconomic class. People belonging to different socioeconomic class have different family demands which could affect their CDS. The results were not supported by any significant findings. One reason could be uneven ratio of participants from different socioeconomic classes. Data was collected from the colleges and university of Islamabad only, there is less variation and representation of different socioeconomic classes. However, this finding of the current study is contrary to the previous research findings. A recent study by Borgonovi and Pokropek, (2017) reported that efficacy of the student is highly related to the socioeconomic status (SES) of their parents. About 60% of the student's intelligence is affected by the SES they belong to. The country with good governance is more likely to have people with better cognitive and intellectual abilities.

Selection of majors. The findings of the current study showed that more than half of the selected sample selected their majors according to their

own choice and fewer selected with mutual consent of parents and oneself and very few selected because of their family choice. In reference to the above stated results, the difference found among different groups showed no significance. A previous research by Strayhorn (2014) found that students who were interested towards their studies and had selected the career according to their own choice were scoring more good results and were reported to be having higher level of self-efficacy as compared to the students who had no interest in what they were studying.

Interest and difficulties in studies. The results of the current study exhibited that students who are interested in what they are studying are more able to appreciate and appraise themselves than the students who are not interested. Almost one fourth of the students in the sample responded that they are interested in what they are studying. Entwisle and Ramsden (2015) claimed that it is very important to understand the interests and motivation of the students for better learning. The sole purpose of the teaching is to facilitate learning of the students. But not only the learning process is important but also to help students to find their right aspirations and motivations should be given equal consideration. Another finding of the current study was that regardless of whether the students are interested or not, they found equal difficulties in the studies.

Prior career consultation and further need for career counseling. Current study found that the difference in CDS of students who have taken a career consultation in any form and the ones without such guidance was not significant. One possible reason for this insignificant finding could be the fact that most of students received an informal advice from the faculty concerning their career choice interests. Since there is lack of existence of centers for vocational testing and career counseling, professional advice is rarely available. Furthermore, a majority of the sample reported that they still need career counseling though they have opted a career. The need for the guidance

and help is still required to get through the difficulties they face throughout the study session.

Implications and Conclusion

Educational institutions and decision makers may find this study helpful. Present study highlights the need for career counseling centers in educational institutions. Educational institutions and decision makers may provide career counseling services for their students to guide and facilitate them in making right career choices. The study is also going to make parents and students realize that belonging to different socio-economic status and getting education from different institutional setup does not have any strong impact on the career of the students, but it is their motivation and interests that make them flourish. The trend of seeking help from counselors before opting the careers or during the studies period can help many students to get on the top of the fields. Therefore, this study lends to the implication in the field of vocational counseling of the significance of being aware of the socio-demographic factors that influence CDS among undergraduate students.



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