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THE RELATIONSHIP BETWEEN EDUCATIONAL PROFILE, LEVEL OF CAREER INDECISION AND OF PERCEIVED SELF-EFFICACY REGARDING THE CAREER DECISION-MAKING PROCESS AMONG ADOLESCENTS

CLAUDIA CRIȘAN[1], SEBASTIAN TURDA[2]

ABSTRACT. Career indecision represents one of the key aspects in the field of vocational psychology. The present study, with a correlational design, aims to investigate the relationship between educational profile, the level of career indecision and the career decision-making self-efficacy among the late adolescents (N=160). The results showed that there is a significant positive correlation between career decision-making self-efficacy and students' educational profile, which means that there is a moderate association among these variables.

Keywords*: career indecision, career decision-making self-efficacy, educational profile*

ZUSAMMENFASSUNG. Die Unentschlossenheit von vielen Personen im Bereiche der Karriere ist eine der wichtigsten Aspekte in der Berufspsychologie. In der vorliegenden Studie, die mit einem Korrelations Design analysiert wird, zielt man darauf ab, den Zusammenhang zwischen Ausbildungsprofil, das Niveau der beruflichen Unentschlossenheit und die Karriere Entscheidungsselbstwirksamkeit bei den späten Jugendlichen (N = 160) zu untersuchen. Die Ergebnisse zeigten, dass es eine signifikante positive Korrelation zwischen Beruf Entscheidungsselbstwirksamkeit und Bildungsprofil der Studierenden gibt, was bedeutet, dass eine gemäßigte Verband zwischen diesen Variablen existiert.

Schlüsselwörter: *beruflichen Unentschlossenheit, Karriere Entscheidungsfindung, Ausbildungsprofil*

[1] *Educational Sciences Department, Faculty of Psychology and Sciences of Education, Babeș-Bolyai University, Cluj-Napoca, Romania, Email: claudiacrisan75@yahoo.com*
[2] *Autism Baia Mare, Email: s_turda@yahoo.com*

Background

The transition from secondary school to tertiary level of education on the job market requires adolescents to make important decisions regards career choices. Restrictions regarding alternatives or options can lead to career indecision, which often is associated with anxiety, depression, lower life satisfaction and maladjustment (Creed, Prideaux & Patton, 2005). The process of career exploration and decision making can be a particularly stressful time in an adolescent's life and sometimes the adolescents have to recourse to coping mechanisms such as placing the responsibility for making a career decision onto others and may even delay or avoid making a choice, which could ultimately lead to a less than optimal decision (Gati & Saka, 2001).

Career indecision represents one of the major issues in the field of vocational psychology (Brown & Rector, 2008; Savickas, 2006). This concept began to be increasingly studied as a result of increased personnel fluctuation rate, job transitions and the behavior that adolescents frequently adopt (Fouad & Bynner, 2008). Therefore, career indecision has been defined as the inability to make decisions in various contexts and situations (Gaffner & Hazler, 2002; Patalano & Wengrovitz, 2006; Di Fabio & Palazzeschi, 2012), respectively to face up the challenges that involve defining in a realistic way the vocational direction (Gati, Krausz & Osipow, 1996). Literature review has shown that some personality traits and some emotional aspects play a significant role in explaining the career decision-making difficulties (Brown & Rector, 2008; Saka & Kelly, 2008, Di Fabio & Palazzeschi, 2009). Moreover, indecisiveness has been associated with individual characteristics such as low self-esteem (Ferrari, 1991, Germeijs & De Boeck, 2002), perfectionism (Frost & Shows, 1993; Gayton et al., 1994), emotional instability (Tokar, Fischer & Subich, 1998), anxiety (Fuqua, Newman & Seaworth, 1988, Tokar, Fischer & Subich, 1998), depression (Saunders, Peterson, Sampson & Reardon, 2000) or fear of commitment (Leong & Chervinko, 1996; Page, Bruch & Haase, 2008). Additionally, Guay et al. (2003) shown in their study that self-efficacy and autonomy toward career decision-making have a significant direct impact on career indecision, a conclusion supported by Brown & Rector (2008). Also, White and Tracey (2010) consider that self-knowledge has an important source for career decision-making process

because in their study the researchers identified a relationship between authenticity and career indecision. Based on their study result, they found that individuals who scored higher on the authenticity measure were less indecisive about their career and were less likely to lack goal orientation, while individuals with low scores on the authenticity measure developed a high level of career indecision, were anxious, had an external locus of control and experienced difficulties in their belief about their problem solving ability.

According to Bandura (1997), the judgments regarding the self-perceived capacity or self-efficacy influence the situations an individual choses to get involved into, the behaviors people choose to engage in and how much they persevere in their efforts in the face of obstacles and challenges and emotional reactions while anticipating or involving in a situation (for example: the level of stress or anxiety). Thus, self-efficacy refers to an individual's belief in his or her capacity to execute specific behaviors necessary to produce specific performance attainments and beliefs about self-efficacy influences the way of thinking, motivation, performance and individual's emotional activation (Opre & Boroș, 2006).

Career decision-making self-efficacy denotes individual's degree of confidence that he can successfully engage in tasks associated with making a career choice and commit to a career (Taylor & Betz, 1983). Individuals with a high level of career decision-making self-efficacy prefer decisions that are more challenging and complex and are more motivated to seek as much information when they are involved in the decision-making process. Since the emergence of career decision-making self-efficacy concept, a number of studies have demonstrated its importance in the study of career development. For example, several studies have found positive relationships between career decision-making self-efficacy and: vocational identity (Gushue, Scanlan, Pantzer & Clarke, 2006), career exploration (Blustein, 1989), occupational self-efficacy (Taylor & Popma, 1990), career decision-making attitudes (Luzzo, 1993), self-esteem (Robbins, 1985) and preference for growth in one's career (Gianakos, 2001). Conversely, other studies have demonstrated negative relationships between career decision-making self-efficacy and: career indecision (Lopez & Ann-Yi, 2006; Taylor & Betz, 1983; Taylor & Popma, 1990), isolation from others (Gianakos, 2001) and fear of commitment (Wolfe & Betz, 2004).

Other studies, such as those made by Betz & Hackett (1983) and Hackett et al. (1981) support the existence of gender differences regarding career decision-making self-efficacy, especially concerning the search related to following a certain professional path that has proven to be more dominant to adolescents. Mostly, male adolescents feel efficacious toward careers in science and technology whereas female adolescents feel more efficacious toward careers traditionally held by them (Bandura, 1997; Betz & Hackett, 1981). In a study realised by Marlino & Wilson (2003), they have found that while male and female adolescents have comparable levels of self- confidence, there are important differences in key areas; specifically, girls have reported lower confidence levels than boys in areas related to math, finance, decision making and problem solving, but they have significantly better results in planning and gathering information about career which they wish to follow, as Gianakos (2001) concludes in his study.

In a longitudinal study realised by Perţe (2013) using a sample of 554 high school students, in twelve grade, belonging to the following educational profile: philology, mathematics-computer programming profile, social sciences, nature science and technical profile (library tehnicians), she has identified significant differences regarding career decision-making difficulties among different educational profiles, but as a result of the decreased effect caused by a high statistical power, the author suspended acting upon these differences. Also, the same study shown significant differences concerning decision difficulties due to lack of information about the specializations followed by students. According to the results of the post-hoc tests, it was found there was a tendency in students from natural science profile showing a higher level of difficulty in comparison with the students from social science profile. However, in relation to career decision-making self-efficacy, the author did not find significant differences regarding the educational profile.

Based on research findings, the purpose of the present study is to identify whether there is a difference between participants' educational profile, career indecision and career decision-making self-efficacy.

Method

Participants

The present study is based on the participation of 121 students of "Dragoş Vodă" National College from Sighetu-Marmaţiei, Maramureş county. The total number included 57 were boys (47,1%) and 64 girls (52,9%). Their majors were: science profile (42,14%), humanities profile (27,27%) and social studies 37 (30,57%); their age ranged from 16 to 18 years (m=17, SD=0.81). All the participants were in their final high-school year of study.

Measures

The two variables investigated in this study (career indecision and career decision-making self-efficacy) were measured using the following instruments for data collection:

Vd1- career indecision was measured with Career Decision Difficulties Questionnaire CDDQ (Gati, Krausz & Osipow, 1996)

Vd2.- career decision-making self-efficacy was measured with Career Decision - Making Self-Efficacy- Short Form Scale; CDMSE-SF (Taylor & Betz, 1983).

Career Decision Difficulties Questionnaire CDDQ (Gati, Krausz & Osipow, 1996)

The questionnaire comprises 3 major components of difficulties encountered in career decision-making: lack of readiness, lack of information and inconsistent information. It consists of 34 items which are further divided into 10 subcategories plus 3 additional items; the first additional item requires the participant to specify if he/she has already made a decision regarding future career, the second additional item assesses participant's certainty that he/she has made the right decision and the third additional item, which is presented at the end of the actual questionnaire, assesses participant's perceived level of difficulty regarding future career decision process. Respondents are asked to indicate their level of agreement with these statements on a nine-point scale, ranging from 1 - "Does not describe me", to 9 - "Describes me well".

The present study is based on the application of *lack of information* and *inconsistent information* subscales. The lack of information subscale includes: lack of knowledge about the steps involved in the process of career decision-making; lack of information about self, lack of information about the various occupations and about the ways of obtaining additional information and inconsistent information includes unreliable information, internal and external conflicts.

Gati et al. (1996) reported for the Israeli population an internal consistency reliability coefficient of .95 for the entire questionnaire and .70, .93, .91 for the three categories of difficulties. For the American population, the same researchers obtained an internal consistency reliability coefficient of .95 for the total scale and .63, .95, .89 for the subscales. In general, the internal consistency coefficient have very good values, studies proving the Cronbach coefficient of over .80 (Gati, Osipow & Krausz, 1996; Osipow & Gati, 1998; Gati, Osipow, Krausz & Saka, 2000; Mau, 2001). Gati et al. (1996) reported that the test-retest reliability coefficients of the 3 major components of the career difficulties were .67, .74, .72 and .80 for the entire questionnaire for the Israeli sample.

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

The scale measures an individual's degree of belief that he or she can successfully complete tasks necessary to making career decisions. The scale consists of five subscales: Self-Appraisal, Occupational Information, Goal Selection, Planning and Problem Solving. Students rate their perceived effectiveness on a 5-point Likert scale (1 = *no confidence at all* to 5 = *complete confidence*).

In our research we focused on the Career Planning subscale, which assesses the level of adolescent's confidence to set long-term, medium and short-time goals regarding their professional and educational directions.

Taylor & Betz, (1983) have reported an internal consistency reliability coefficient (alpha) .83 for the subscales and .94 for the total score.

Research design

The current study had a correlational design, thus the principal purpose was to investigate the relationship between educational profile, career indecision and career decision-making self-efficacy.

Procedure

In the first stage all participants were informed about the purpose of the present investigation and about the instruments used to collect the data. To avoid any measuring error that might have been due to the data collection procedure, all participants were given a collective briefing before questionnaire completion. After this stage ever participant had individually completed the form in a paper-pencil format.

Results

Table 1. Kolmogorov-Smirnov Test for data distribution of career indecision variable

One-Sample Kolmogorov-Smirnov Test

		CDDQ_inconsistent_ information	CDDQ_lack_of_ information	CDDQ_ total
N		82	108	121
Normal Parameters[a,b]	Mean	7,2317	9,3889	15,7107
	Std. Deviation	2,61193	2,44121	5,99088
Most Extreme Differences	Absolute	,250	,414	,188
	Positive	,145	,197	,147
	Negative	-,250	-,414	-,188
Kolmogorov-Smirnov Z		2,262	4,299	2,066
Asymp. Sig. (2-tailed)		,000	,000	,000

a. Test distribution is Normal.
b. Calculated from data.

Table 2. Kolmogorov-Smirnov Test for data distribution of career decision-making self-efficacy variable

One-Sample Kolmogorov-Smirnov Test

		Self-efficacy_ Career_Planning	Self-efficacy_ total
N		80	28
Normal Parameters[a,b]	Mean	7,4250	16,7857
	Std. Deviation	3,25994	7,99239
Most Extreme	Absolute	,286	,243

		Self-efficacy_ Career_Planning	Self-efficacy_ total
Differences	Positive	,215	,152
	Negative	-,286	-,243
Kolmogorov-Smirnov Z		2,554	1,285
Asymp. Sig. (2-tailed)		,000	,073

a. Test distribution is Normal.
b. Calculated from data.

We noticed that K-S test results for measured variables are statistically insignificant: career indecision (z=2,066; p<0, 01) and career decision-making self-efficacy (z=1,285; p<0, 05); therefore the distribution of these variables did not differ from a normal distribution.

Table 3. Descriptive indicators for indecision career by gender and participants' educational profile

Case Summaries

CDDQ_Total

gender	educational_ profile	N	Mean	Median	Std. Error of Mean
Male students	science	27	16,7037	18,0000	,99688
	humanity	10	14,4000	16,0000	2,37206
	social	20	16,5000	19,0000	1,27010
	Total	57	16,2281	18,0000	,76295
Female students	science	24	15,1667	19,0000	1,29753
	humanity	23	15,7391	17,0000	1,21131
	social	17	14,7059	17,0000	1,64666
	Total	64	15,2500	17,5000	,77472
Total	science	51	15,9804	19,0000	,80610
	humanity	33	15,3333	17,0000	1,09291
	social	37	15,6757	18,0000	1,01790
	Total	121	15,7107	18,0000	,54463

Analyzing the results shown in Table 3, it can be noticed that there are significant differences regarding the career decision difficulties over the participants' educational profile. Thus, the high level of indecision is found to be among boys with a science profile (M=16,70, SD=0,99) and social studies (M=16,50; SD=1,27), while among the girls, the indecision level is high for those with a science profile M=15,16; SD=1,29) and humanities profile (M=15,73; SD=1,21).

Table 4. Descriptive indicators of career decision-making self-efficacy by gender and participants' educational profile

Case Summaries

CDMSE-SF_total

gender	educational_ profile	N	Mean	Median	Std. Error of Mean
Male students	science	6	15,8333	20,5000	4,39254
	humanity	2	16,5000	16,5000	6,50000
	social	4	15,2500	13,5000	3,03795
	Total	12	15,7500	15,5000	2,42501
Female students	science	6	12,1667	11,5000	4,02837
	humanity	6	21,3333	22,5000	1,70620
	social	4	20,0000	20,0000	2,38048
	Total	16	17,5625	22,0000	1,96420
Total	science	12	14,0000	16,5000	2,89461
	humanity	8	20,1250	22,5000	1,92203
	social	8	17,6250	16,0000	1,99944
	Total	28	16,7857	19,5000	1,51042

Regarding career decision-making self-efficacy variable, we can say that there are differences among the measured variable, participants' identity and participants' educational profile. Therefore, the boys belonging to a science profile (M=15,83; SD=4,39), and social studies (M=15,25; SD=3,03) had low level of career decision-making self-efficacy compared to girls belonging to a science profile (M=12,16; SD=4,02) and social studies (M=20, SD=2,38).

In order to test the existence of a relationship between variables, we used the Pearson correlation coefficient because the conditions of employing it were met` (both variables are quantitative and the distribution is normal).

Table 5. The correlation between decision-making self-efficacy and participants' educational profile

Correlations

		CDMSE-SF_total	Educational_profile
CDMSE-SF_total	Pearson Correlation	1	,219
	Sig. (2-tailed)		,262
	N	28	28
Educational_profile	Pearson Correlation	,219	1
	Sig. (2-tailed)	,262	
	N	28	160

After calculating the r Pearson correlation coefficient we noticed that there is a significant positive correlation between career decision-making self-efficacy and educational profile $r_{(26)}$=0,219, p<0,01 (26 represents the degrees of freedom, df=N-2, where N is the number of subjects), which means that there is a moderate association between the two variables, so the hypothesis is confirmed.

Discussion

From the perspective of the reviewed literature, there are few studies discussing the issue of differences between students' educational profile, career indecision and career decision-making self-efficacy. The results of the present study confirm the Perţe (2013) results regarding the existence of differences between educational profile, career indecision and career decision-making self-efficacy. According to the presented data, it was showed that there are significant differences between educational profile, gender and career indecision. However, the male and female students from science profile showed greater

career decision difficulties, a fact reported in the case of the male students from social studies and the female students from humanities profile. Also, the results indicate that male students from humanity profile and female students from social studies showed a lower levels of career indecision.

Regarding the second studied variable, career decision-making self-efficacy, the results had indicated the existence of differences between gender and students' educational profile, results which are in contradiction to results obtained by Perţe (2013). According to obtained results we found differences between male adolescents and female adolescents belonging to science profile and social studies, where the male participants indicated a low level of career decision-making self-efficacy. However, there did not appear to be significant differences between male and female participants from humanities profile.

To sum up, the students from science profile indicated a high level of career indecision but in the same time they showed a lower level of career decision-making self-efficacy in comparison to students from humanities profile. Regarding social studies, the study showed that male and female adolescents indicate a lower level of career decision-making self-efficacy but a high level of career indecision have identified only among male adolescents.

Limitations of the current study

One of the limitations of the study consistes in the sample of participants chosen. Adolescents included in the study were students of the same high-school, so the results may not have a high accuracy degree in generalizing the obtained results.

Another limitation of the study is the use of assessment instruments which are not validated and adapted to Romania population, so that their psychometric properties remain unchanged.

The third limitation of the study could be the reintegration in the research of exogenous variables (for example: the parents' educational level) and endogenous variables (e.g. dysfunctional beliefs, personality traits, perfectionism) which could provide a wider picture regarding career decision difficulties of the participants in this study.

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