

Perceived career barriers as a mediator between career adaptability and life satisfaction

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Abstract.

Career adaptability is a widespread concept that is embedded in the career construction theory, the essence of which is that the individual integrates their professional self-image into their career during career development. The relationship between career adaptability and life satisfaction among university students has not yet been clarified. Perceived career barriers occurs due to the rapid changes and developments on a global scale expose all individuals to ongoing problems and barriers which they may not be able to cope with. These barriers can be interpreted subjectively, that is, what represents a barrier for an individual, may not be one for another. This study examining the relationship between career adaptability and life satisfaction and the perceived barriers with potentially mediating effects. A total of 562 students from the psychology and special education faculty were surveyed. Results show that career adaptability predicts life satisfaction, moreover, this relationship is mediated by perceived career barriers and coping efficacy of perceived career barriers. The aim of the research was to gain a clearer picture of university students' career development, and to help the work of career counseling centers, which aim at reducing attrition rate. The results suggest that it is worthwhile to increase career adaptability and to identify perceived barriers to facilitate a smoother career development process.

Keywords: career development, drop-out rate, self-efficacy, university students, well-being

1. Introduction

Enrollment in undergraduate education is gaining in popularity, as proved by the number of enrolled undergraduate students (EUROSTAT, 2019) which has risen significantly in Europe over the past 5 years; and so is the case of students enrolled at the Faculty of Psychology and Education. Along with the larger number of students, the rate of drop-out students has also increased. As much as 25-30 percent of the enrolled students drop out already in the first year (Data collected from the Department of Applied Psychology, Cluj-Napoca), with both full-time and distance learning students included.

There are several models for the study of dropout rates, one of the most detailed and involving psychological factors is the dropout model of Bean and Metzner (1985), which includes: background variables, organizational variables specific to higher education, study-related factors (counseling, skills development, university resources, absenteeism, legal certainty, integration aspirations), social factors (close friends, professional culture, university group identification, social integration), environmental variables (parental support, financial

status, family obligations), examination of psychological processes (self-efficacy, self-development, self-confidence, self-control, learning strategies, motivation, stress, alienation, perseverance) (Bean, 1980; Bean & Metzner, 1985).

In order to reduce early dropout, it is essential to examine the kind of career development traits the currently active students have. By investigating the early career path characteristics of university students, we can be more effective in preventing high drop-out rates. Taking into account the factors discussed in the dropout model and the characteristics of career development, the following were examined: the relationship between widespread career adaptability and life satisfaction and the perceived barriers with potentially mediating effects.

Career Adaptability (CA) refers to the state of readiness that allows an individual to deal effectively with changes and obstacles during his career (Savickas & Portfeli, 2012). Several longitudinal studies show that young people with a higher CA, including career decisions, planning, discovery, and confidence, are more likely to successfully overcome their transition states and obstacles during their careers (Creed et al., 2003; Germeijs & Verschueren, 2007; Neuenschwander & Garrett, 2008; Patton et al., 2002). In addition, those with high CAs have a much greater emphasis on decision-making confidence, motivation for learning, and goal-orientation (Neuenschwander & Garrett, 2008; Wilkins et al., 2014). With all this in mind, it is important to examine CA and life satisfaction (LS) in the context of dropping out, as studying these two factors is useful and can be used to curb drop-out rates. It has also come to attention that, in order to get a more accurate picture of the reasons for drop-out, it would be good to know how obstacles and effective coping with the career are present. The perceived career barriers and effective coping with these have been shown to have an impact on the individuals' career development (Luzzo & McWhirter, 2001; McWhirter, 1997). In light of all this, reviewing the theoretical aspects of the three constructs and presenting it in order to get a clearer picture and to set up the hypotheses.

1.1. Career Adaptability

The emergence of many studies underlines the fact that our ability to develop and adapt is becoming more and more important (eg, Koen et al., 2012; Maggiori et al., 2013; Savickas, 1997; Savickas & Porfeli, 2012; Zacher et al., 2015); the most obvious and striking explanation for this is the development of global technology. Progressively professions are disappearing or transforming; in parallel, many professions gain new meaning, or new jobs are emerging, the best solution for remedying this, that is, filling new jobs or retraining, is when the individual is adaptable during his career (Savickas et al. 2009). The concept introduced by Savickas (1997), career adaptability means the ability of people to manage change without any problem and to adapt to new situations and events due to their standby status. Young adulthood, the period between 18-29 years, is the life period the majority of university students belong to. This period of development is characterized by instability and doubts (Kuwabara et al., 2007), as many are not sure what the next step in their career is, so adaptability may be vital.

Career adaptability is a widespread concept that is embedded in the career construction theory, the essence of which is that the individual integrates their professional

self-image into their career during career development (Savickas, 2002, 2005). CA is a multidimensional construct that is firmly grounded in this theory, since the theory claims that individuals differ in their will (adaptivity) and abilities (adaptability), by use of which they become committed to activities that are career-related (adapting) (Savickas, 1997, 2002, 2005). Nothing can prove it better that the theory is in vogue than the fact that CAAS (career adapt-abilities scale) is a tool used to measure CA in more than 13 countries (Savickas & Portfeli, 2012). Career adaptability is the "readiness to cope with the predictable tasks of preparing for and participating in the work role and with the unpredictable adjustments promoted by changes in work and working conditions" (p. 254) (Savickas, 1997). To better understand the concept of CA the subscales of Career Adapt-Abilities Scale are presented which measures the following:

Concern is about having awareness and prepare for what might come next. Control allows individuals to become responsible for shaping themselves and their environments, to meet what comes next by using self-discipline, effort, and persistence; curiosity reflects how a person is willing to explore their environment, also refers to exploring themselves and alternative scenarios in the career path which may occur. In this context, confidence means self-confidence which is important to deal with vocational or career problems (Savickas & Portfeli, 2012).

People's ability to adapt to the rapidly changing environment has positive outcomes (Wilkins et al, 2014). In our fast-paced and constantly evolving everyday life, the ability to adapt to change comes close to mandatory (Polyhar & Bliese, 2006).

1.2. Life satisfaction

Life satisfaction is the most commonly used indicator for determining subjective well-being, which is the quality of life judged by an individual on the basis of a specific criteria system (Pavot & Diener, 1993). Evaluating living satisfaction conditions on cognitive level is a key factor in determining subjective well-being (Linley et al., 2009).

1.3. The relationship between career adaptability and life satisfaction

Studies that have investigated the relationship between career adaptability and career satisfaction (CS) have led to the result that CA positively predicts CS (Chan et al., 2016; Chan & Mai, 2015; Guan et al., 2015, Ginevra et al., 2018; Karatepe and Olygbade, 2017; Xie et al., 2016; Zacher, 2014) as well as job satisfaction or academic satisfaction (Fiori et al., 2015; Han & Rojewski, 2015; Rezapour & Ardabili, 2017; Celik & Srome, 2017; Duffy et al, 2015).

In addition to the correlation between CA and LS, numerous studies have shown that the more adaptive the individual is towards his career, the more satisfied with his life he is (Wilkins et al., 2014; Ramos & Lopez, 2018; Santilli et al., 2017; Santilli et al., 2014; Buyukgoze-Kavas et al., 2015; Zhan & Lin, 2016; Magiorri et al., 2013); yet, there were results where only certain subscales of CAAS, such as control, confidence, concern were predictive for life satisfaction (Konstam et al, 2015;). Hirschi's (2009) longitudinal research also showed that higher CA has increased life satisfaction with students over time. With this in mind, the relationship between CA and LS among university students has not yet been

clarified, let alone the Eastern European context, where the predictor of satisfaction proves to be a very exciting topic.

The aim of this project was to examine the relationship between subjective well-being and CA, as they do not yet have a job they can be satisfied or dissatisfied with, and they are at the beginning of their careers. In addition to examining the relationship between CA and LS, it is interesting how this relationship is affected by perceived barriers and how they can effectively be dealt with.

1.4. Perceived career barriers and coping efficacy for perceived career barriers as mediators

Barriers to career development may include individual or environmental events or conditions that make it difficult for an individual to build a career. Individuals may be faced with different types of barriers at different stages of their career development, so we can speak of a temporal dimension in the perception of barriers, too, which determines whether the barrier is related to the past, present, or future. In the framework of the SCCT (Social Cognitive Career Theory), the factors related to the past are mostly based on learning experiences and self-efficacy; the factors related to present focus on achievement of goals, while the expectations of the results relate to future (Lent et al, 2001). There are many reasons why students may leave their studies. The main reason for leaving the university is the desire to work instead, or the fact of finding the studies uninteresting. The degree of difficulty of their studies, family reasons and financial and health problems are also leading causes of dropping out (EUROSTAT, 2018).

Although PCB (perceived career barriers) are mostly researched in women and minorities, as they detect more barriers (Luzzo and McWhirter, 2001), rapid changes and developments on a global scale expose all individuals to ongoing problems and barriers which they may not be able to cope with. These barriers can be interpreted subjectively, that is, what represents a barrier for an individual, may not be one for another. Luzzo and McWhirter (2001) formulate two types of barriers, one related to learning, the other to career. Both are currently in the life of students, as they are continuously trained, and at the same time, they are in one of the most active career-building stages. In addition to the perceived barriers, an indicator has been identified that shows the level of coping with barriers.

To overcome the barriers associated with the above-mentioned fast-paced change, adaptability is essential; with its help, the individual overcomes the perceived barriers more easily. Therefore, this study is not looking at the impact of the decision-making process on the perceived barriers, but it is interested in how the relationship between adaptability and satisfaction is influenced by the barriers and the disposition to overcome them. Students' career adaptability, if high, they are able to approach new tasks with curiosity and interest (Savickas, 2013), and in order to control they also need adaptation, since the continuous changes must be applied to their own life-course. Both career exploring and planning are influenced by the perceived barriers (Lent et al., 1994, 1996; McWhirter, 1997; McWhirter et al., 1998; Swanson et al., 1996; Swanson & Woitke, 1997).

Besides perceiving barriers, what may affect an individual's career development and can really determine it, is coping efficacy. According to Bandura (1997), the level of coping efficacy suggests the degree to which an individual considers themselves capable of dealing with and managing difficult and complicated situations. In Bandura's opinion, individuals, who have a high level of coping efficacy, are not disadvantaged when they perceive barriers and obstacles in achieving certain goals (Bandura, 1997). In other words, those who have a relatively high level of self-confidence have trust in their ability to handle problematic situations, they are more likely to be able to overcome perceived barriers in order to achieve their goals and succeed. One of the main elements of career adaptability is confidence, which implies that in changing situations, the individual can confidently hold on and they trust that they will successfully adapt to new situations and events (Savickas, 2013).

In their study, Luzzo and Hutcheson (1996), found a negative correlation between career maturity and barriers related to the future. Similar results were obtained when students' career development was examined. Those who had to face a significant number of barriers were hampered by the perceived barriers in achieving the goals set in their career (Luzzo, 1993, 1995; McWhirter, 1997; Swanson et al., 1996). The relationship between CA and PCB was studied in teenagers as well, and it was concluded that students with lower CA perceived more barriers than students with higher adaptability levels (Soresi et al., 2012).

All in all, it can be stated that the perceived barriers in the career may have a negative impact on career attitude and behavior (Albert & Luzzo, 1999; Leal-Muniz & Constantine, 2005) or on their self-beliefs (Albert & Luzzo, 1999; Betz, 2001).

Considering all the above, we came to the conclusion that besides examining the relationship between career adaptability and life satisfaction, it is important and useful to look at how perceived career barriers and coping with barriers can affect the existing relationship. In light of this, the following hypotheses were set up:

Hypothesis 1.: Career Adaptability relates to life satisfaction through perceived career barriers (Figure 1.):

Hypothesis 1a.: Career adaptability relates negatively to perceived career barriers.

Hypothesis 1b.: Perceived career barriers mediates the link between career adaptability and life satisfaction.

Hypothesis 2: Career Adaptability relates to life satisfaction through coping efficacy for perceived career barriers (Figure 2):

Hypothesis 2a.: Career adaptability relates positively to coping efficacy for perceived career barriers.

Hypothesis 2b.: Coping efficacy for perceived career barriers mediates the link between career adaptability and life satisfaction.

Figure 1: Conceptual framework with perceived career barriers as mediator

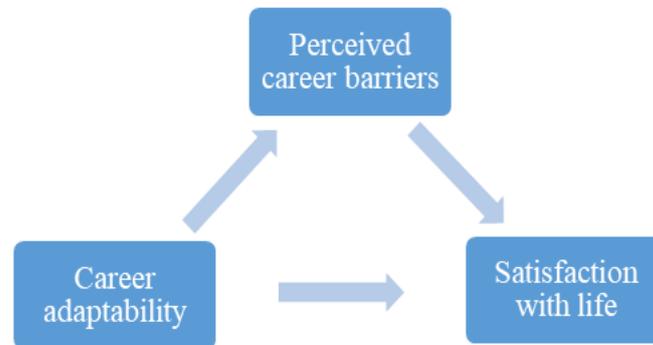


Figure 2: Conceptual framework with coping efficacy of perceived career barriers as mediator



2. Methodology

2.1. Sample and procedure

The sample of the study consisted of 562 participants (10.8 % male, mean age 24.99; SD=8.17), the main criteria was that the respondents had to be students at psychology or special education faculty, thus 386 (68.7%) psychology students and 176 special education students (31.3%) took part in the study. Data were collected from Romania and Hungary as well, data collection lasted for two semesters, from February to May and from September to October. All respondents voluntarily completed the paper and pencil questionnaire during the class.

2.2. Measurement

2.2.1. Career Adaptability

The participants filled out the CAAS-Transylvanian Hungarian Form (Veres et al., 2017) in order to measure concern, control, curiosity, confidence, and in total career adaptability. The CAAS-International contains 24 items that combine to form a total score that indicates career adaptability (Savickas & Portfeli, 2012). The CAAS-Transylvanian Hungarian Form has only 23 items, due to one missing item, which did not prove satisfactory in the procedure of validation. The scale is divided into four subscales that measure the adaptability resources of concern (6 items), control (6 items), curiosity (5 items), and confidence (6 items). Participants responded to each item choosing a scale from 1 (not strong) to 5 (strongest).

The subscales measure the following:

Concern is about having awareness and prepare for what might come next. Control allows individuals to become responsible for shaping themselves and their environments, to meet what comes next by using self-discipline, effort, and persistence; curiosity reflects how a person is willing to explore their environment, also refers to exploring themselves and alternative scenarios in the career path which may occur. In this context, confidence means self-confidence which is important in dealing with vocational or career problems (Savickas & Portfeli, 2012).

2.2.2. Life satisfaction

Life satisfaction was measured by Satisfaction with Life Scale (SWLS; Diener et al., 1985). The scale consisted of 5 items measured on a 7-point Likert-type ranging from 1-strongly disagree to 7-strongly agree. The lowest score a respondent can reach is 5, while the highest score is 35, the higher the score, the more satisfied the individual is with their life. Several studies confirm the validity and reliability of the questionnaire (Lucas et al., 1996; Pavot et al., 1991). In this sample, the internal consistency coefficient was found to be $\alpha = .84$.

2.2.3. Perception of barriers (POB) and coping with barriers (CWB)

Perception of barriers (POB) and coping efficacy related to barriers (CWB) was measured through the use of Perceived Barriers Scale developed by Luzzo and McWhirter (2001). The POB scale had 32 items measuring perceived education and career barriers as well. Likert type item responses to POB scale range from 5-strongly agree to 1-strongly disagree, higher scores indicate the perception of more career barriers. CWB scale 32 items measure the coping efficacy or the students' level of confidence in overcoming education and career barriers. Likert type item responses to CWB scale range from 5-highly confident to 1-not at all confident, higher scores reflect greater confidence in students' ability to cope with barriers (Luzzo and McWhirter, 2001). In this sample, the internal consistency coefficient was found to be for PCB $\alpha = .90$ and for CWB $\alpha = .97$.

3. Results

In order to test the hypotheses, mediation analyses were performed using SPSS and PROCESS statistical tool developed by Hayes (2013). Before testing the hypotheses, descriptive statistics and intercorrelations between the study variables were calculated (see Table 1).

Table 1: Descriptive statistics and correlations among study variables

		Mean	SD	1	2	3	4	5	6	7	8
1.	CAAS	3.91	0.51	(.89)							
2.	Concern	3.99	0.63	.70**	(.72)						
3.	Control	4.01	0.66	.81**	.35**	(.81)					
4.	Curiosity	3.84	0.62	.81**	.47**	.53**	(.70)				
5.	Confidence	3.79	0.66	.86**	.44**	.69**	.59**	(.85)			
6.	CWB	3.96	0.57	.22**	.05	.26**	.13**	.26**	(.97)		
7.	PCB	1.67	0.48	-.18**	-.01	-.24**	-.09*	-.22**	-.22**	(.90)	
8.	SWL	5.27	1.09	.37**	.07	.42**	.25**	.40**	.40**	-.35**	(.84)

Note. CAAS= Career Adapt/Abilities Scale, CWB= Coping With Barriers, PCB= Perceived Career Barriers, SWL=Satisfaction With Life.

* $p < .05$.

** $p < .001$.

The cronbach alpha for the CAAS was 0.89, for CWB was 0.97, for PCB was 0.90, and for SWL was 0.84, indicating strong reliability and internal consistency.

Table 2: Standardized regression coefficients predicting students' life satisfaction

	Model 1: Perceived career barriers	Model 2: Satisfaction with life
Age	-.03	(-.04) -.05
Gender	.09*	(-.09*) -.06
Career adaptability	-.13**	(.36**) .32**
Perceived career barriers		-.27***
R2	.02	.21***
oR2		.20***
F (3; 455)	4.59**	24.41***
F (4; 454)		30.17***

Note: The coefficients in parentheses in Model 2 show the hierarchical regression results before introducing the mediator.

* $p < .05$

** $p < .01$

*** $p < .001$

Regression analysis was used to test the mediation effect among the variables following the steps suggested by Judd and Kenny (1981). The first regression was run between CAAS (independent variable) and PCB (mediator). In Model 1 (Table 2), the direct path from independent variables to the mediator was estimated. The mediator, PCB was set as independent variable, CAAS were set as predictor. In Model 2, hierarchical regression analysis was run, therefore the direct paths from independent variables to the outcome variable, controlling for the mediator, were estimated. The mediator (PCB) was added to the above-mentioned predictor variable list and life satisfaction was set as the outcome. Table 2 provides the standardized (Beta) estimates for each regression model.

Regression analysis was also used to test the mediation effect of coping efficacy for perceived career barriers. In Model 1a (Table 3) the direct path from independent variables to the mediator was estimated. The mediator, CWB was set as independent variable, CAAS were set as predictor. In Model 2a, hierarchical regression analysis was run, therefore the direct paths from independent variables to the outcome variable, controlling for the mediator, were estimated. The mediator (CWB) was added to the above-mentioned predictor variable list and life satisfaction was set as the outcome. Table 2 provides the standardized (Beta) estimates for each regression model.

Table 3: Standardized regression coefficients predicting students' life satisfaction

	Model 1a: Coping efficacy for perceived career barriers	Model 2a: Satisfaction with life
Age	.04	(-.04) -.05
Gender	.04	(-.09*) -.10*
Career adaptability	.19***	(.35***) .32***
Coping efficacy for perceived career barriers		.14**
R2	.04	.21***
oR2		.20***
F (3; 442)	6.56**	21.87***
F (4; 441)		19.52***

Note: The coefficients in parentheses in Model 2a show the hierarchical regression results before introducing the mediator.

* $p < .05$

** $p < .01$

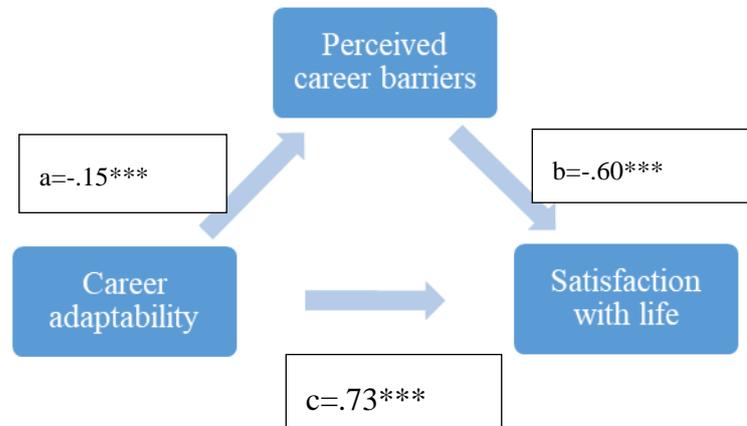
*** $p < .001$

Results show that Career Adaptability (CA) is negatively associated with PCB and positively with CWB, these findings support Hypothesis 1a and 2a.

Moreover, to test the mediation effect declared in Hypothesis 1b and 2b, indirect effects of CA to LS through PCB (H 1b) and CWB (H2b) were estimated using PROCESS. In order to do this, mediation analysis was performed, where life satisfaction was set as the outcome-dependent variable and CA was, in turn, set as independent variable-predictor. Variables like age and gender were added to the covariates list. Following the four steps established by Baron and Kenny (1986), Judd and Kenny (1981), steps were performed with three regression equations, establishing a variable mediates the relation between a predictor variable and an outcome variable.

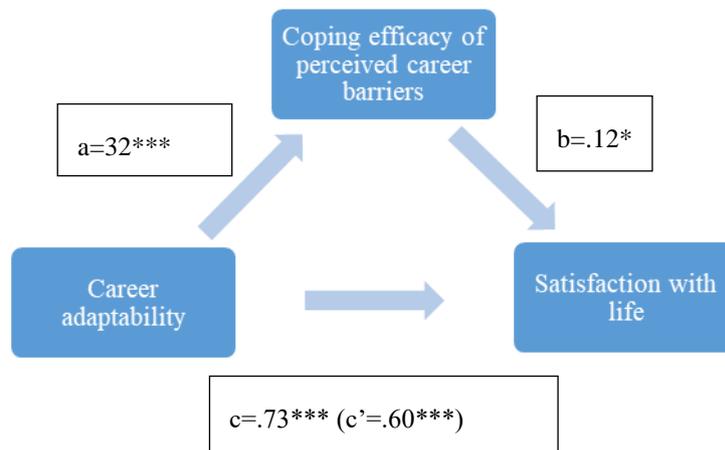
The indirect effects and 95% bias-corrected confidence intervals were estimated using 1000 bootstrap samples. A significant indirect effect was indicated by the confidence interval not including the zero value. According to the results, PCB and CWB mediated the relationship between CA and LS (unstandardized indirect effect for PCB: .091, 95%, CI = [.0400; .1585], CWB: .039, 95%, CI = [.0069; .0921]). The direct path between CA and LS remained significant after including the mediators (PCB and CWB) indicating partial mediation. Therefore, Hypotheses 1 and 2 were supported.

Figure 3: Perceived career barriers as mediator between CA and LS



PCB as mediator between CAAS and LS Note: The coefficient $.73^{***}$ represents the strength of linear association between CA and LS when PCB is controlled by including it as another predictor of LS; the coefficient $.60^{***}$ represents the linear association between CA and LS when PCB is not statistically controlled (Figure 3).

Figure 4: Coping efficacy of perceived career barriers as mediator between CA and LS



CWB as mediator between CAAS and LS Note: The coefficient $.73^{***}$ represents the strength of linear association between CA and LS when CWB is controlled by including it as another predictor of LS; the coefficient $.60^{***}$ represents the linear association between CA and LS when CWB is not statistically controlled (Figure 4).

4. Conclusion

The results support the well-conceived picture of previous research that career adaptability predicts subjective well-being and, in this sample, life satisfaction. The novelty of this paper is that the group we have been researching is from Eastern European countries, they come from Romania and Hungary, specifically from the Faculty of Psychology and Education. It is important to emphasize this because many studies examine the career development of nurses (Yonder, 1995; Chang et al., 2006; Donner & Wheeler, 2001), doctors (Stamm & Buddeberg-Fischer, 2011) or social workers, but the career development of psychology and special education students is a less researched area, despite the fact that they as well work with people and there is a great risk of drop out and burnout after being employed.

One of the main goals of the research was to investigate the hypotheses that CA predicts LS, and this relationship is mediated by PCB and CWB, to provide useful information for career counseling offices and university centers in order to reduce the dropout rate. As it turned out, the level of adaptability also promotes the increase of life satisfaction, that is, to be more satisfied, (i.e. to create a certain level of well-being for ourselves), it is advisable to increase their career adaptability.

The fact that the relationship between CA and LS is negatively mediated by PCB and positively by CWB suggests career advisors that it is worthwhile to clear the barriers in university students' career development, but if they do not have the opportunity to do so, the increase and improvement of their self-efficacy can be of help because it positively mediates the relationship between CA and LS (Duffy et al., 2015).

Another aspect of dropouts may be the fact that the rate of emigration from Eastern Europe also has a major impact on the career development of young people ready to get employment. The picture that they see has a paradoxical effect on them, because one-third of the workforce works abroad, while there is a huge labor shortage in the country (Romania). Many explain this contradiction by the fact that foreign wages are more satisfactory. So, it is no surprise that individuals are engaged in foreign employment to create a better quality of life.

In other respects, this research is also useful in highlighting that the extent to which barriers are overcome can also affect our quality of life. Thus, it is worth emphasizing the importance of, for example, mindfulness as a coping mechanism for university students, as it is useful for uncertain employees as well (Jacobs & Blustein, 2011).

5. Limitations

In order to confront students with fewer barriers, it is advisable to clarify the barriers in the coming years, to elucidate whether lack of finances and lack of support from family or university are the existing barriers or they are internal barriers; as such, they can more accurately be remedied. Another limitation of the research is that we have not been able to

reach out to students who have already left the faculty, so their coping self-efficacy and their perceived barriers could not be revealed.

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