

THE MOST IMPORTANT SELF-EVALUATION AND SELF-EFFICACY IN CHOOSING A VOCATION AS DETERMINANTS OF VOCATIONAL OUTCOMES OF JUNIOR KARATEKAS

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Abstract

The aim of this research was to examine the predictions of vocational outcomes of junior karatekas based on the constructs of the most important self-evaluation and self-efficacy in expectations regarding their vocational outcomes. This research included 204 karatekas from Serbia (AM = 16.42, SD = 1.06). Three measuring instruments were applied on this pertinent sample: Core Self-Evaluations Scale, Career Decision Self-Efficacy Scale (CDSES-SF) and Vocational Outcome Expectations Scale (VOE). The internal consistency and reliability of the used scales was in accordance with the theoretical statistical reliability criteria. The values of Cronbach alpha coefficients were ($\alpha = 0.82$, $\alpha = 0.90$, $\alpha = 0.88$), which points to homogeneity among the items. The conducted model of hierarchical regression analysis determined that the variables: a) the most important self-evaluation and b) self-perceived career decision self-efficacy, are statistically significant predictors of the criterion of karatekas' vocational outcome expectations, which accounted for 66% of the variance of criterion variable ($R^2 = 66\%$, $p < 0.01$). At the same time, the partial contribution of the construct of core self-evaluation was mediated by the participants' perceived career decision self-efficacy. The obtained results were discussed within theoretical and practical context.

Key words: karatekas, core self-evaluation, career decision self-efficacy, vocational outcome expectations

Introduction

Even though the constructs of the most important self-evaluation and career decision self-efficacy as predictors of vocational outcomes among adolescent athletes have been for a while now important to researchers and theoreticians, the deficit in the research of this phenomenon is evident, especially in Serbia. The way in which athletes make career decisions, and the behavior they chose to realize their vocational goals, is significantly conditioned by their expectations or evaluation of the real possibility of goal realization. The significance of the athletes' expectations regarding possible consequences to their actions is identified within the context of socio-cognitive theory where such expectations are considered one of the main determinants of career decision making (Ingrell, Johnson & Ivarsson, 2018). Based on this career theory, the individual activity and professional accomplishments of

athletes, apart from the individual expectations of future achievements, are linked with the beliefs about personal competences for achieving desired goals. Such beliefs i.e. self-efficacy of athletes in choosing the career, greatly contribute defining the vocational goals and behavior they chose to realize vocational goals (Tim Rees et al., 2016). Also, the construct of career decision self-efficacy significantly correlates with vocational abilities, persistence in trying to achieve vocational goals and vocational success (Romann & Cobley, 2015). In that way, the method of career decision self-efficacy can be compared to other types of self-efficacy which are codependent with the goal choice, persistence and investing effort to achieve success in sport (Vandendriessche et al., 2012). It can be expected that self-experienced career decision self-efficacy of athletes is, to a certain degree, based on

their principles and constant evaluations of individual competences and values, which on the core self-evaluation scale (Gucciardi, Peeling, Ducker & Dawson, 2015) implies integrative latent dimension which includes self-respect, locus of control, general self-respect and emotional stability. The evaluation of the latent dimension the most important self-evaluation is first prompted by the intensive correlation of the aforementioned characteristic personality traits (Abraham et al., 2014). At the same time, the research of Chang et al. (2015) shows that the construct the most important self-evaluation correlates with satisfactory life, methods of dealing with various forms of stress, as well as the measurements characteristic for the processes of athletes' professional life. Therefore, the study of Kaiseler, Polman & Nicholls (2012) revealed the relevance of the core self-evaluation in making professional decisions and in athletes' behavior, where the higher level of this dimension correlates with the lower level of stress, higher persistence, higher motivation to win and better professional success. It is interesting to point out that in the earlier research, the core self-evaluation has proven itself multiple times to be the more significant determinant of the used criteria, such as the competition success or life satisfaction than the lower level dimension, so it was extracted during multivariate procedure as the additional determinant even after including individual variables in the further steps of hierarchical regression analysis (Kong, Wang & Zhao, 2014; McSherry, 2012). The presented results indicate that the core beliefs of athletes in themselves and their abilities in characteristic situations correlate with deciding on a career.

Considering the indubitable importance of the problem discussed in this research, and that these kinds of research have not been conducted in the area, *the main aim* of this research was to examine the significance of the constructs the most important self-evaluation and self-perceived career decision self-efficacy in explaining the variance of vocational outcome expectations of junior karatekas, and to examine the contribution of the control variable of karatekas' school success in predicting their vocational outcome expectations. Based on the theoretical framework and findings of previous researches, two hypotheses have been tested: (H₁) postulates that the perceived latent dimensions (the most important self-evaluation and sport career decision self-efficacy) are relevant predictors of vocational outcome expectations of junior karatekas and (H₂) postulates that the variable (school success of karatekas) is the determinant of vocational outcome expectations of karatekas in the period of mid-adolescence.

Methods

Sample and participants

The research included 204 junior karatekas (16.42 ± 1.06 years of age). The pertinent sample included karatekas from Kolubara district, Serbia, coming from seven karate clubs: KC „Shodan“ (Valjevo), KC „014 Valjevo“ (Valjevo),

KC „Kizame“ (Valjevo), KC „Sveti Sava“ (Mionica), KC „Železničar“ (Lajkovac), KC „Kaminari“ (Osečina) i KC „Ljig“ (Ljig). All participants had at least two years of systematic and organized karate training, at least three times a week.

Working with professional associates – psychologists, the research was conducted during January 2018. Before starting the survey process, the participants were given detailed instructions on answering the questions of the measuring instruments (example questions were shown), as well as the written short list of information about the aim of the research, and that the data would be analyzed primarily on the group level. The participation in the research was fully voluntary and anonymous and was conducted in groups of 30 participants using pen-and-paper method. The participants were answering by circling the number which represented the level of their agreement with each of the items on a scale. Before starting the survey, the coaches and parents of the participants gave written consent to their participation in the research, in accordance with the ethical norms of conducting the psychological research. Karatekas were told that they can quit the research any time they want. No participant quit or refused to take part in research. It took approximately 20 minutes to fill in the questionnaires, and after they were done, the participants sealed the questionnaires in envelopes and handed them to the head researcher.

Measuring instruments

General data and school success survey enabled the collection of general data regarding grade and education variable – general school success (average grade in each subject at the end of the half-term).

Core Self-Evaluations Scale (CSES; Judge, Erez, Bono & Thoresen, 2003) includes 12 items, six of them are reverse scored (for example, “I sometimes feel worthless when I experience failure”, “I sometimes feel depressed”), and six are positive (for example, “I believe that I get the success in life I deserve”). The construct includes for latent personality dimensions: self-respect, general self-efficacy, neuroticism and locus of control. The participants' task was to evaluate their level of agreement with each item on a five-point Likert type scale (1 = strongly disagree; 5 = strongly agree). The range varies from 12 to 60, and the total score is manifested as the total of all values divided with the number of items. The higher score on the scale indicates more positive individual self-evaluation. The coefficient of internal consistency (*Cronbach's alpha*) was $\alpha = 0.82$, which points to satisfactory reliability of the measuring instrument.

Career Decision Self-Efficacy Scale (CDSES-SF; Betz, Klein & Taylor, 1996) is an instrument for examining participants' belief regarding their own ability to perform tasks necessary for successful career management. The short version of the instrument was applied on the sample. It consists of 25 items which concern the individual's ability to successfully perform several tasks concerning career building (for example, “How certain are you that you could be chose a career that suits your interests?”). The participant's task was to evaluate, on a five-point scale, the level of certainty in their ability to perform the tasks

given of a five-point scale (1 = completely uncertain, 5 = completely certain. For example: “To make a plan of your goals for the next five years”). The higher total score on this measuring instrument means the higher level of career decision self-efficacy. Our sample confirmed good scale reliability ($\alpha = 0.90$). This points to the fact that the metric characteristic (reliability) of this measuring instrument has been measured correctly.

Vocational Outcome Expectations Scale (VOE; Betz, Klein & Taylor, 1996) examines the individual’s expectations which represent their competence to realize their desired vocational outcome. The measuring instrument consists of six items (for example, “I will be successful in my chosen career”), in which the participant’s task is to evaluate their level of agreement with each item on this four-point scale (1 = strongly disagree; 4 = strongly agree). The higher score on the scale indicates more positive vocational outcome expectations. The reliability (internal consistency) is expressed with Cronbach’s alpha coefficient of internal consistency, and it was $\alpha = 0.88$, which points to relevant satisfactory reliability of the scale.

Statistical analysis

Standard descriptive methods (arithmetic mean, standard deviation, minimum, maximum, and the parameters of normal distribution skewness and kurtosis) were used for statistical data analysis. The reliability – internal consistency of scales, was determined using Cronbach’s alpha coefficient for each of the scales, with the criterion for asymmetry and skewness from -1 to 1 (Tabachnick & Fidell, 2007). The linear link between the examined variables in this research was evaluated using Pearson correlation coefficient ($p < 0.01$), and hierarchical linear model (HLM) was used to determine the intensity between predictor variables and criterion variables. The obtained data was processed using statistical software IBM SPSS 23.

Results

Table 1 shows the core central and dispersive parameters for individual items of CSES, CDESE-SF and VOE as well as the indicators of normal distribution of skewness and kurtosis. The obtained values of asymmetry and skewness coefficients revealed that the variable distribution did not deviate from Gaussian (normal) distribution, which means that all variables are suitable for further multivariate parametric statistical processing.

Following the standard descriptive statistical analysis, using the Pearson correlation coefficient, Table 2 shows the analysis of the correlation between the used scales of the most important self-evaluation, career decision self-efficacy and vocational outcome expectations (Table 2).

The obtained results in the inter-correlation matrix showed that there is a statistically significant correlation of mid intensity and positive direction between the examined variables *academic success* and *career decision self-efficacy* ($r = 0.41, p < 0.01$), *the most important self-evaluation* and *career decision self-efficacy* ($r = 0.50, p < 0.01$), *the most important self-evaluation* and *vocational outcome expectations* ($r = 0.54, p < 0.01$), and *career decision self-efficacy* and *vocational outcome expectations* ($r = 0.62, p < 0.01$). The obtained values of correlation coefficient point to the fact that the higher the score of the karatekas on the academic success, the most important self-evaluation and career decision self-efficacy, the higher the score on constructs of career decision self-efficacy and vocational outcome expectations is.

With the aim of identifying partial relevant contributions of predictor variables (the most important self-evaluation and sport career decision self-efficacy) in explaining the variability of karatekas’ vocational outcome, two hierarchical regression analyses, shown in Table 3, were conducted.

Table 1 Main descriptive parameters of the results

Variable	Min	Max	<i>M</i>	<i>SD</i>	<i>Sk</i>	<i>SE_{sk}</i>	<i>Ku</i>	<i>SE_{Ku}</i>
The most important self-evaluation	16	60	39.25	7.63	0.55	0.16	-0.15	0.35
Career decision self-efficacy	47	124	89.16	9.65	-0.19	0.16	-0.032	0.35
Vocational outcome expectations	14	54	40.07	7.12	0.34	0.16	-0.09	0.35

Table 2 Inter-correlations between the examined variables

Variable	1	2	3	4
Academic success	–	0.11	0.41**	0.09
The most important self-evaluation		–	0.50**	0.54**
Career decision self-efficacy			–	0.62**
Vocational outcome expectations				–

** $p < 0.01$.

Table 3 The results of hierarchical regression analysis: prediction of karatekas' vocational outcome expectations

Predictor	Step 1		Step 2	
	β	SE	β	SE
Academic success	0.09	1.78	-0.02	1.16
The most important self-evaluation			0.33**	0.23
Sport career decision self-efficacy			0.36**	0.45
<i>R</i>		0.05		0.72
<i>R</i> ²		0.01		0.66
ΔR^2				0.65

Annotation: β = Standardized partial regression coefficient; SE = standard error for regression; *R* = Multiple correlation coefficient; *R*² = Coefficient of determination or squared multiple correlation; ΔR^2 = the contribution of individual groups of predictors to the percentage of the explained variance; **p* < .05; ***p* < .01

In the first step of the analysis, control variable *karatekas' school success* was introduced into the regression equation, but it did not give significant contribution to explaining the karatekas' process of vocational outcome expectations. In the second step of the linear regression model, the model which introduced two additional variables *self-evaluation* and *career decision self-efficacy* was examined. The results of the hierarchical linear model conducted on the sample of junior karatekas indicate that the control variable from the first step of the analysis (karatekas' school success) explained very small and marginally significant part of the criterion variance (karatekas' vocational outcome expectations). After the control of karatekas' school success, as statistically significant predictor of participants' vocational outcome expectations, it can be seen in the second step of the regression equation that 66% of the variance was explained by introducing predictor variables (the most important self-evaluation and career decision self-efficacy), which indicates that 2/3 of the points lies on the regression line, meaning that the chosen HLM is reliable and representative. On the other hand, 34% of the proportion of the residual variations, or deviations of empirical data from the regression line of the sample, was not identified because it is the consequence of the accidental error and cannot be explained using the examined variables. In addition, the insight into the relatively small values of standard error for regression, meaning variability surrounding the regression line, shows satisfactory representativeness of the regression model.

Analyzing the data matrix, *the most important self-evaluation* ($\beta = 0.33, p = 0.01$) and *career decision self-efficacy* ($\beta = 0.36, p = 0.01$) proved themselves to be significant positive predictors of participants' vocational outcomes. Basically, the results of hierarchical analyses are sensible to predictor inter-correlations, which can cause changes in the significance of individual predictor due to the introduction of the new group of variables. The obtained positive values of standardized partial regression coefficients point to the higher level of career decision self-efficacy, mean-

ing that the karatekas who have more intensive the most important self-evaluation and career decision self-efficacy have better vocational outcomes.

Discussion

This research examined the relative contribution of latent variables the most important self-evaluation and career decision self-efficacy in explaining the variance vocational outcome expectations of junior karatekas. Maximum contribution to vocational outcome expectations showed the variables the most important self-evaluation and career decision self-efficacy, where the influence of the most important self-evaluation on the variability of vocational outcome expectations of karatekas was somewhat generated by the career decision self-efficacy.

The results obtained in this research showed linear correlations of mid intensity and positive direction between the constructs the most important self-evaluation and sport career decision self-efficacy, which is in accordance with most of the previous studies in this area. Variable the most important self-evaluation correlates with other forms of participants' belief in themselves, which implies that this latent dimension is a consequence of the link of self—respect, general self-efficacy and neuroticism (Cavallo, Zee & Higgins, 2016). Basically, it can be expected that the person's core beliefs in themselves and their abilities can partly be generalized within the context which implies career decisions (Gustavson, Røysamb, Borren, Torvik & Karevold, 2016).

Using the sample of karatekas, this research confirmed the starting hypothesis (*H*₁). It turned out that the perceived the most important self-evaluation and sport career decision self-efficacy are relevant determinants of junior karatekas' vocational outcome expectations, which is in accordance with the findings of earlier studies (Mirzaei, Nikbakhsh & Shariffar, 2013; Talyabee, Moghadam & Salimi, 2013). Seeing how earlier studies confirmed that belief in personal abilities, as well as optimism directed towards future, have positive influence on person's professional

behavior, the findings of this research also emphasized the significance of karatekas' belief in personal abilities and probability for their vocational outcomes (Bergomi, Tschacher & Kupper, 2013). At the same time, it should be mentioned that sport career decision self-efficacy and some types of positive beliefs in personal abilities create conditions for defining the more positive expectations of future and better results, such as greater satisfaction with and quality of sports life.

Unlike the tested hypothesis, the obtained results revealed that control variable (school success) did not contribute to explaining the karatekas' vocational outcome expectations (H_2 is rejected). Such finding can be explained by relative homogeneity of the participant sample which included only the adolescents of similar age and gender. On the other hand, some results of earlier studies show the absence of gender differences regarding vocational outcome expectations (Demulier Université Paris-Sud, Le Scanff Université Paris-Sud & Stephan, 2018; Université Montpellier 1 Park, Lavallee, & Tod, 2013), although gender can significantly contribute to professional development and making sport career decisions (San, 2015; Wayment, Bauer & Sylaska, 2015).

In this research, the control variable school success was evaluated by the mean average grade of karatekas at the end of previous year's the half-term, which was generally relatively high. For this reason, future research should more fully apply this variable in practice and thus more precisely examine its relevance in the process of karatekas' vocational outcomes. At the same time, it should be emphasized that positive and moderate correlation between this variable and sport career decision self-efficacy was found in this research, which implies that the more successful karatekas have better abilities necessary for professional success.

All in all, the conducted research confirms a great number of previous findings regarding various kinds of karatekas' beliefs in their own abilities and dimensions for their professional ways to handle a sport situation. Actually, the obtained results give new notions about the contribution of characteristic karatekas' beliefs and their professional abilities in explaining the core self-evaluation during adolescence.

The conducted research, despite its numerous advantages, is characterized by certain methodological limitations. The first limitation is the participant sample and regionally homogenous sample, and gender, which diminishes the possibility for generalizing the results. The second limitation of this research is using self-evaluation method which, due to individual differences in introspection ability, can likely lead to giving socially desirable answers. The third limitation is the correlational draft which does not allow defining of cause-effect relationship between variables.

To improve the methodology of this transversal research, future researches need to focus on more heterogeneous and larger karateka sample of both genders and from other areas of Serbia as well, and instead of using self-evaluation, independent evaluators should do the evaluations, which could increase the data reliability. In addition, the

obtained parameters be tested with additional longitudinal and experimental research, based on which the conclusions about the causal link between the variables could be reached. Such upgraded research methodology can predict the process located in the core of karatekas' directed behavior, which can have significant implications for creating useful guidelines for improving the process of karatekas' vocational outcomes.

Conclusion

The results of the research conducted on the pertinent sample of junior karatekas confirm the theoretical and statistical reliability criteria of the scales SCES, CDSSES-SE and VOE (Cronbach alfa > 0.70), which implies that the psychometric measuring instruments are suitable to be used on the population of adolescent athletes in Serbia. The empirical data of this transversal type of correlational research signals that there is statistically significant and moderate bivariate link between the used variables, which is in accordance with the identical findings of previous studies. The results of the hierarchical regression analysis show that the latent dimensions (the most important self-evaluation and self-efficacy) are statistically significant, positive and partial predictors of criterion variance (vocational outcome expectations). Summing up the results, it can be concluded that the obtained empirical data enables the more exact insight into the complex relations between the self-perceived constructs, their relevant interpretation, as well as the important practical implications for improving the process of junior karatekas' vocational outcomes.

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