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Type of education and life experiences in the dual career

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abstract

Background: The objective of this study was to check whether the type of education is related to the development of a dual career in professional sport.

Material and methods: This study used the Chi-square test of independence and Student's t test to analyze 7 scenarios (not experienced and experienced) presented to the participants. A final survey-list, consisting of 38 items of competences (possession and importance) and completed by 243 young people: 218 (89.7%) athletes obtaining secondary education and 25 (10.3%) obtaining or having higher education.

Results: There were statistically significant differences between people with higher education and secondary education in terms of possessed competences, but there were no statistically significant differences between higher education and secondary education in terms of the importance of competences. There were statistically significant differences between people with secondary education and people with higher education in experiencing scenario 1 and 5.

Conclusions: The results of both studies confirmed three hypotheses. It turned out that the level of education is related to the course of athletes' dual career. Of particular importance are the athletes' social competences and life experience.

Key words: education, dual career, life experience.

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INTRODUCTION

Faced with the development of mass culture and the broadly understood socialization of societies, there is a need for multitasking and multi functionality of individuals. Man develops his skills not only on one plane but tries to do it in a wider field. This applies to many areas of human life, such as work, family, sports or education. Today's competitive athlete will not only devote himself to sports but is also increasingly thinking about the development of his educational career.

Trying to connect the sphere called elite sport and education in the process of a dual career path is a source of concern for many professional athletes. Great success in one area is often done at the expense of the other. At the moment, there are many studies showing that there is a positive nature of dual career paths. In this regard we note the importance of understanding the processes underlying the differences in the development of athletes' lives [1].

This article presents the research protocol to find new methodological and analytical methods that can help to understand how psychological and social processes are linked to the social development of adolescent athletes. It is worth noting that this development accompanies certain competencies and career aspirations needed in adulthood [2].

Engaging in both areas is a very difficult task. Many international studies indicate that very talented athletes who are required to perform both sports and educational tasks simultaneously seek to achieve their potential [3–7].

Elite career in sports is very short (e.g. retirement from sports begins after the age of 30–35) and requires a lot of work, commitment, time and energy in developing specific sports skills. It is worth noting that there is a tendency to set priorities for student-athletes, namely priorities in their sports career, because it is difficult to reconcile sports training requirements with major restrictions of educational systems [8–10].

A sports career does not have to go smoothly. It can lead to health problems, injuries or serious disability because of active participation in sports. This leads to career gambling and even to a break. Consequences can be very unpleasant; they can lead to social shock in form of adaptive disorders going beyond sport. Living under stress of combining a sporting and academic careers may be a reason for fear of consequences that can lead to sporadic sports overload as well as many teenage disorders [11, 3, 6].

It is, therefore, necessary to determine the supporting factors and the necessary competencies to facilitate combining sports with academic career of young people. Dual career is a relatively new area of activity in the science of sport, which in the nearest future is to verify athletes' learning outcomes in terms of their competence to enable them to achieve high performance in sport, and after their sporting career in professional and personal life in accordance with the theory of transaction in sport [7, 12].

The role of sport in the development of the modern world is of particular importance. The widespread interest in the Olympic Games, the world championships in various sports disciplines and the various competitions shows that in the wider world of sport, sports are one of the most important life passions. Sport is becoming an important part of human life, especially

because education is so important for the development of man that, to a certain extent, it is inscribed in the process of sport training and physical activity. World studies show the importance of the value of sport and physical education in the development of human personality [13].

The necessity of introducing children and adolescents to acquiring constructive codes of social behavior and to developing habits of physical fitness (gymnastics, swimming, tennis, football, running) is noted. Sport and active recreation meet the natural need for movement and improve adaptive capacity, and physical exercise is essential in the proper development of the body because it shapes the muscular system and stimulates the cardiovascular and the nervous systems. Sport shapes personality traits (e.g. discipline, persistence, responsibility). Early adolescent sport, which influences the upbringing of a young person, improves adaptability, shapes personality traits, prevents civilization diseases, shapes life attitudes and values [14–16].

More importantly, it has educational functions in the process of developing young people. Broadly understood motor activity is a means of getting to know reality, which is due to direct personal contact with culture and social life. It is worth noting that it is also responsible for shaping specific attitudes towards reality (e.g. courage, learning to overcome difficulties and adaptation to new circumstances and situations). It stimulates creative work and implements the division of labor and responsibilities thus ensuring certain holistic development [17]. The impact of family economic factors also plays a role in the development of the physical capabilities of children and adolescents, but this fact should not be overestimated [18].

An important element of sports development in young people is also the simultaneous development of education, which guarantees better prospects of life and work. Educational development promotes self-development and increases flexibility in thinking and acting. Persons with higher education and professional experience not only receive higher salaries for their work, but also have better chances of employment because they are more flexible [19]. Education also has a positive impact on individuals' wellbeing, in particular the level of their health and social capital [20, 21].

Thus, two research questions arise: firstly, does the level of education affect managing one's own career?; secondly, do the selected social competences affect the ability to combine two career paths? On the basis of previous theoretical and empirical frameworks, it is hypothesized that: (H1) Persons with higher education are probably better able to manage their further careers compared to persons with secondary education. (H2) The ability to combine two career paths in sport depends on selected social competencies, such as flexibility in performance and ability to prioritize. (H3) In the development of a dual career in sport, multilevel development is important, which broadens the horizons and increases the flexibility in action.

MATERIAL AND METHODS

Samples

Two hundred forty-three young people took part in this study: 105 women (43.2%) and 138 men (56.8%). Their mean age was M = 18.77 years (SD = 2.74). Four people did not report their age. The youngest person was 15 years old and the

the oldest one was 25 years old. The majority of respondents (218 people, 89.7%) continued their education in secondary schools, while four people (1.6%) continued their schooling in higher education. Twenty-one respondents (8.6%) graduated from higher education. Among them, five persons (2.1%) followed a postgraduate programme and 16 people (6.6%) did not follow any educational programme (Table 1).

Table 1. Description of participants' sex and education

	N	%
Female	105	43.2%
Male	138	56.8%
During secondary education	218	89.7%
During higher education	4	1.6%
Graduated from higher education	21	8.6%
During a doctoral study (PhD)	0	0.0%
During a postgraduate programme	5	2.1%
Do not follow any educational programme	16	6.6%

Two hundred twenty people (90.5%) practiced a sport discipline that is performed at the Summer Olympic Games. Sixteen people (6.6%) practiced a non-Olympic and non-Paralympic sport. Seven people (2.9%) practiced a sport discipline that is performed at the Winter Olympic Games (Table 2). The majority of the respondents (151 people, 67.7%) practiced individual sport. Less than 2% of the participants have taken part in the Olympics Games. On the other hand, more than 10% of the participants have taken part in a World Cup, a World Grand Prix or a World Tour, while 48.1% have taken part in a National Competition or a National Cup. The majority of the respondents (207 people, 85.2%) have taken part in regional competitions (Table 2).

Table 2. Sport categories

	Female	Male	Total
A non-Olympic / non-Paralympic sport	9 (8.6%)	7 (5.1%)	16 (6.6%)
A sport that is performed at the Summer Paralympic Games	0 (0%)	0 (0%)	0 (0%)
A sport that is performed at the Winter Paralympic Games	0(0%)	0(0%)	0(0%)
A sport that is performed at the Summer Olympic Games	94 (89.5%)	126 (91.3%)	220 (90.5%)
A sport that is performed at the Winter Olympic Games	2 (1.9%)	5 (3.6%)	7 (2.9%)
Individual	64 (68.1%)	87 (67.4%)	151 (67.7%)
Team	30 (31.9%)	42 (32.6%)	72 (32.3%)
Olympic Games	2 (1.9%)	2 (1.4%)	4 (1.6%)
Youth Olympic Games (YOG)	10 (9.5%)	5 (3.6%)	15 (6.2%)
World Cup, World Grand Prix, World Tour	17 (16.2%)	18 (13.0%)	35 (14.4%)
World Championship junior / youth (U23, U21, U19, U18, U17, U16)	26 (24.8%)	25 (18.1%)	51 (21.0%)
World Championship senior	8 (7.6%)	11 (8.0%)	19 (7.8%)
European Youth Olympic Festival (EYOF)	8 (7.6%)	7 (5.1%)	15 (6.2%)
European Championship junior/youth (U23, U21, U19, U18, U17, U16)	34 (32.4%)	45 (32.6%)	79 (32.5%)
European Cup / Tour	18 (17.1%)	23 (16.7%)	41 (16.9%)
European Championship senior	13 (12.4%)	11 (8.0%)	24 (9.9%)
National competition/cup	56 (53.3%)	61 (44.2%)	117 (48.1%)
National competition/cup junior/youth (U23, U21, U19, U18, U17, U16)	90 (85.7%)	108 (78.3%)	198 (81.5%)
Regional competition/cup	90 (85.7%)	117 (84.8%)	207 (85.2%)

The majority of the respondents (164 people, 67.5%) lived at their parents' home. Less than 20% of the participants lived with a guest family (39 people, 16.0%), while less than 10% of the participants at a boarding school (24 people, 9.9%), rented or owned flat or house (13 people, 5.3%), and student accommodation (not in a boarding school) (3 persons, 1.2%) (Table 3).

Table 3. Participants' living place

	Female *N (%)*	Male *N (%)*	Total *N (%)*
Parents home	67 (63.8%)	97 (70.3%)	164 (67.5%)
Guest family	17 (16.2%)	22 (15.9%)	39 (16.0%)
Boarding school	12 (11.4%)	12 (8.7%)	24 (9.9%)
Flat/house (rented or owned)	7 (6.7%)	6 (4.3%)	13 (5.3%)
Student accommodation (not in a boarding school)	2 (1.9%)	1 (0.7%)	3 (1.2%)
	105 (100.0%)	138 (100.0%)	243 (100%)

MEASURES

The study was initiated in the framework of the Project Erasmus DC GEES (Gold in Education & Elite Sports The project aims to measure the level of competence and to determine what competencies are essential in the development and maintenance of dual career by competitive athletes (measured quantitatively and qualitatively).

It is worth remembering that a set of specific competencies creates a psychosocial and professional attitude. The first part of the study concerned defining which competencies are important for high-performance athletes. For this purpose, a questionnaire for competent athletes was developed in the Polish version. The next stage of the study was to determine which scenario from seven available and presented by the researcher the athletes have experienced. It is worth noting that well-balanced dual career in athletes can be extremely beneficial because it promotes the implementation of a new career after the sports career and secures the athlete's position. The development of sports career involves interaction between personal development and challenges experienced by an athlete before, during and after the sports career. In the first part of the survey, respondents were asked to indicate on a Likert scale to what extent (1–5) they feel the statement as either of high or low intensity. The total number of statements is 38 items (Table 4).

Table 4. Some examples of statements of the Likert's scale

No.	Competences
1	Ability to cope with stress in sport and study
2	Having knowledge about your career options in study and sport
3	Ability to use setbacks in sport and/or study as a positive stimulus
4	Ability to resolve conflicts
5	Ability to put sport and study performances in perspective
6	Ability to make social contacts with peers in study and sport
7	Ability to live independently with competent life skills (e.g. cooking)
8	Ability to spend and manage your own money
9	Ability to adapt well to new situations
10	Ability to maintain relations with important others
11	Ability to negotiate (in order to stand up for your own interests)
12	Assertiveness (being self-assured and acting with confidence)

No.	Competences
13	Asking advice to the right people at the right time
14	Eagerness to listen and learn from others and past experiences
15	Ability to collaborate with support staff in study and sport (e.g. coach, teacher, support provider…)
16	Understanding the importance of rest and recuperation
17	Being patient about the progression of your sport and study career
18	Ability to critically evaluate and modify your goals when needed
19	Ability to set realistic goals in sport and study
20	Ability to plan conscientiously in advance
21	Ability to use your time efficiently
22	Ability to regulate emotions in different situations
23	Ability to be flexible and change plans if necessary
24	Being prepared for the unexpected and having back up plans
25	Belief that study and sport can positively complement each other
26	Belief in your own ability to overcome the challenges in sport and study
27	Ability to create individualized routines (for sport and study)
28	Ability to focus on here and now, without being distracted
29	Vision of where you want to go in life after your dual career
30	Clear understanding of what it takes to succeed in sport and study
31	Willingness to make sacrifices and choices to succeed in sport and study
32	Ability to prioritize what needs to be done
33	Being curious to explore career plans outside elite sport
34	Awareness of your strengths, weaknesses and capabilities
35	Self-discipline to manage the demands of your study and sport combination (e.g. work independently without the supervision of others)
36	Ability to make your own responsible choices with regard to your study and sport career
37	Perseverance during challenging times and in the face of setbacks
38	Dedication to succeed in both sport and study

The scenarios presented in the test consisted of the following 7 capabilities; subjects had to determine which of them they felt. Experiencing certain scenarios is associated with possessing specific competencies.

The next stage of the study was to determine if the athletes had experience in seven dual-career scenarios that a typical young athlete may face, where experience in each scenario was associated with specific competencies. Participants responded in the affirmative or negative. Scenario #7 was optional for those aged 18 years of age or less.

Scenario #1: You are going to start a difficult year in college with exams taking place during a decisive stage of the season. You want to succeed in both areas.

Scenario #2: In light of your (future) career, you want to choose the best study plan and make the best study choices to pursue both sport and education in the future.

Scenario #3: Your competition and training schedule means that you will not attend a number days of school. You need to catch up during and/or after competition/training.

Scenario #4: You decide to leave home and family to participate in your sport or education. You need to adapt to a new social environment and cope with less family support.

Scenario #5: You are studying and competing but suffer an injury. You want to continue to study and compete once you recover from the injury.

Scenario # 6: The combination of sport and study makes it challenging to have a rich social life outside of sport (e.g. time with friends, going out...). You need to find a balance between your dual career and social activities outside of sport.

Scenario #7: During your study and training schedule, you do not have enough money to balance education and sport and you have to find a way to generate income.

As shown by previous studies, combining the two areas of education and the development of sports is a difficult process [4, 15, 19, 21]. A need arises to create programs and guidelines that have to support implementation of the universal dual career development plan.

Procedure

First of all, professional athletes of both secondary education and higher education filled in a questionnaire containing 38 items – competencies in an online version. The subjects had to mark which of them are relevant for the development of their future career. The next stage of the study was the choice of the scenarios that related personally to the subjects. There were 7 scenarios. Participation in the study was anonymous and no monetary or other material rewards were offered.

Statistical analysis

Standard deviations and percentages were calculated. Student's t test was used to compare secondary education and higher education scores with the dual career competences and the Chi-square test of independence compared participants' experience with the scenarios (it was experienced vs. it was not experienced). All tests were two-tailed, and the significance level was set to $\alpha = 0.05$. Unstandardized regression coefficients were reported. All statistical analyses were conducted in IBM SPSS 22.

Ethics

Attaining formal and written informed consent from the Research Ethics Committee at the Psychology Department of Gdansk University of Physical Education and Sport was not regarded necessary, as voluntary completion of the questionnaires was considered as obtaining consent.

Results

Competences

People with higher education ($M = 4.36$, $SD = 0.76$) significantly more often declare possession of a competence Belief in your own ability to be flexible and change plans if necessary than people with secondary education ($M = 3.85$, $SD = 0.91$); $t(241) = –2.715$, $p = .007$. People with higher education ($M = 4.20$, $SD = 0.96$) significantly more often declare possession of a competence Belief that study and sport can positively complement each other than people with secondary education ($M = 3.76$, $SD = 0.98$); $t(241) = –2.148$, $p = .033$.

People with higher education (M = 4.28, SD= 0.84) significantly more often declare possession of a competence Belief in your own ability to prioritize what needs to be done than people with secondary education (M = 3.93, SD = 0.79); $t(241)$ = –2.073, p = .039. People with higher education (M = 4.32, SD = 0.85) significantly more often declare possession of Self-discipline to manage the demands of your study and sport combination (e.g. work independently without the supervision of others) than people with secondary education (M = 3.93, SD = 0.91); $t(241)$ = –2.064, p = .040. People with higher education (M = 4.44, SD = 0.71) significantly more often declare possession of Perseverance during challenging times and in the face of setbacks than people with secondary education (M = 3.87, SD = 0.84); $t(241)$ = –3.297, p = .001 (Table 5).

Table 5. Comparison between people with secondary education and people with higher education: possession and importance of studied competences

	Competences	Possession				Importance			
		Both education levels	Secondary education	Higher education	p	Both education levels	Secondary education	Higher education	p
	Sum of Possession of all competences	148.72	147.94	155.44	ns	166.52	166.18	169.52	ns
1	Ability to cope with stress in sport and study	3.82	3.78	4.12	ns	4.64	4.64	4.64	ns
2	Having knowledge about your career options in study and sport	3.88	3.89	3.80	ns	4.35	4.35	4.40	ns
3	Ability to use setbacks in sport and/or study as a positive stimulus	3.79	3.77	4.00	ns	4.42	4.40	4.64	ns
4	Ability to resolve conflicts	3.93	3.89	4.20	ns	4.20	4.17	4.40	ns
5	Ability to put sport and study performances in perspective	3.90	3.89	4.00	ns	4.30	4.28	4.40	ns
6	Ability to make social contacts with peers in study and sport	4.11	4.11	4.12	ns	4.23	4.21	4.44	ns
7	Ability to live independently with competent life skills (e.g. cooking)	4.23	4.20	4.48	ns	4.46	4.46	4.44	ns
8	Ability to spend and manage your own money	4.01	4.02	3.92	ns	4.26	4.27	4.20	ns
9	Ability to adapt well to new situations	3.96	3.94	4.12	ns	4.36	4.35	4.48	ns
10	Ability to maintain relations with important others	4.05	4.06	4.04	ns	4.36	4.35	4.48	ns
11	Ability to negotiate (in order to stand up for your own interests)	3.79	3.76	4.08	ns	4.33	4.31	4.48	ns
12	Assertiveness (being self-assured and acting with confidence)	3.87	3.84	4.12	ns	4.38	4.35	4.64	ns
13	Asking advice to the right people at the right time	3.86	3.86	3.80	ns	4.30	4.28	4.48	ns
14	Eagerness to listen and learn from others and past experiences	4.11	4.09	4.28	ns	4.47	4.48	4.40	ns
15	Ability to collaborate with support staff in study and sport (e.g. coach, teacher, support provider…)	4.21	4.20	4.32	ns	4.61	4.62	4.52	ns
16	Understanding the importance of rest and recuperation	4.09	4.09	4.08	ns	4.65	4.66	4.56	ns
17	Being patient about the progression of your sport and study career	3.76	3.73	3.96	ns	4.43	4.42	4.48	ns
18	Ability to critically evaluate and modify your goals when needed	3.93	3.91	4.08	ns	4.33	4.31	4.48	ns
19	Ability to set realistic goals in sport and study	3.94	3.93	4.04	ns	4.35	4.32	4.60	ns
20	Ability to plan conscientiously in advance	3.95	3.94	4.04	ns	4.37	4.37	4.44	ns
21	Ability to use your time efficiently	3.89	3.88	4.00	ns	4.44	4.44	4.48	ns
22	Ability to regulate emotions in different situations	3.64	3.63	3.72	ns	4.37	4.38	4.32	ns
23	Ability to be flexible and change plans if necessary	3.90	3.85	4.36	<.05	4.32	4.32	4.36	ns
24	Being prepared for the unexpected and having back up plans	3.81	3.77	4.12	ns	4.27	4.26	4.32	ns
25	Belief that study and sport can positively compliment each other	3.80	3.76	4.20	<.05	4.05	4.02	4.24	ns

26	Belief in your own ability to overcome the challenges in sport and study	3.76	3.76	3.80	ns	4.51	4.50	4.64	ns
27	Ability to create individualized routines (for sport and study)	3.67	3.66	3.80	ns	4.09	4.08	4.12	ns
28	Ability to focus on here and now, without being distracted	3.77	3.75	4.00	ns	4.43	4.42	4.52	ns
29	Vision of where you want to go in life after your dual career	3.71	3.67	4.04	ns	4.42	4.41	4.52	ns
30	Clear understanding of what it takes to succeed in sport and study	3.98	3.95	4.20	ns	4.41	4.40	4.48	ns
31	Willingness to make sacrifices and choices to succeed in sport and study	4.05	4.02	4.36	ns	4.55	4.55	4.60	ns
32	Ability to prioritize what needs to be done	3.97	3.93	4.28	<.05	4.38	4.36	4.52	ns
33	Being curious to explore career plans outside elite sport	3.74	3.72	3.92	ns	3.99	3.97	4.16	ns
34	Awareness of your strengths, weaknesses and capabilities	3.95	3.96	3.88	ns	4.49	4.48	4.52	ns
35	Self-discipline to manage the demands of your study and sport combination (e.g. work independently without the supervision of others)	3.97	3.93	4.32	<.05	4.41	4.39	4.60	ns
36	Ability to make your own responsible choices with regard to your study and sport career	3.93	3.91	4.12	ns	4.41	4.41	4.40	ns
37	Perseverance during challenging times and in the face of setbacks	3.93	3.87	4.44	<.05	4.60	4.59	4.68	ns
38	Dedication to succeed in both sport and study	4.06	4.03	4.28	ns	4.58	4.60	4.44	ns

SCENARIOS

Scenario 3 (180 persons, 74.1%) and scenario 6 (185 persons, 76.1%) were the most common experienced in the studied group. A Chi-square test of independence was calculated comparing the frequency of experience (scenario from 1 to 7) in people with secondary education and in people with higher education. There were statistically significant differences between people with secondary education and people with higher education in experienced scenario 1, χ^2 (1, N = 243) = 5.60, p = .018, and scenario 5, χ^2 (1, N = 243) = 11.28, p = 0.001. Persons with higher education were more likely to have experienced scenario 1 (17 persons, 68.0%), and scenario 5 (18 persons, 72.0%) than people with secondary education (43.1% and 37.2%, respectively) (Table 6).

Table 6. Comparison between people with secondary education and people with higher education: experience of each scenario

Scenario	Both education levels		Secondary education		Higher education		Chi-square (*df* = 1)	*p*
	not experienced	experienced	not experienced	experienced	not experienced	experienced		
Scenario 1	132 (54.3%)	111 (45.7%)	124 (56.9%)	94 (43.1%)	8 (32%)	17 (68%)	5.60	.018
Scenario 2	144 (59.3%)	99 (40.7%)	133 (61.0%)	85 (39.0%)	11 (44%)	14 (56%)	2.69	.101
Scenario 3	63 (25.9%)	180 (74.1%)	55 (25.2%)	163 (74.8%)	8 (32%)	17 (68%)	.54	.464
Scenario 4	152 (62.6%)	91 (37.4%)	137 (62.8%)	81 (37.2%)	15 (60%)	10 (40%)	.08	.781
Scenario 5	144 (59.3%)	99 (40.7%)	137 (62.8%)	81 (37.2%)	7 (28%)	18 (72%)	11.28	.001
Scenario 6	58 (23.9%)	185 (76.1%)	53 (24.3%)	165 (75.7%)	5 (20%)	20 (80%)	.23	.632
Scenario 7[a]	17 (68.0%)	8 (32.0%)	0 (0%)	0 (0%)	17 (68%)	8 (32%)	-	-

There was a statistically significant difference between persons with secondary education and higher education in terms of the number of experienced scenarios, χ^2 (6, N = 243) = 30.86, p < .001 (Table 7). Seventy-two percent of persons from the higher education group experienced four scenarios or more, while less than 40% of participants from secondary education group experienced at least four scenarios.

Table 7. Comparison between people with secondary education and people with higher education: number of scenarios experienced

Sum of scenarios experienced (first 6)	Both education levels	Secondary education	Higher education	Chi-square *d(f)* = 6)	*p*
0	17 (7.0%)	16 (7.3%)	1 (4.0%)		
1	19 (7.8%)	18 (8.3%)	1 (4.0%)		
2	55 (22.6%)	50 (22.9%)	5 (20.0%)		
3	49 (20.2%)	49 (22.5%)	0 (0.0%)	30.86	< .001
4	48 (19.8%)	40 (18.3%)	8 (32.0%)		
5	33 (13.6%)	26 (11.9%)	7 (28.0%)		
6	22 (9.1%)	19 (8.7%)	3 (12.0%)		

COMPETENCES INTO SCENARIOS

Among people who have experienced scenario 1 people with higher education (M = 4.70, SD = 0.48) have declared using Self-discipline to manage the demands of your study and sport combination (e.g. work independently without the supervision of others) more often than people with secondary education (M = 3.96, SD = 0.90); $t(53)$ = –2.51, p = .015. People with higher education (M = 4.63, SD= 0.52) have declared using Perseverance during challenging times and in the face of setbacks more often than people with secondary education (M = 4.13, SD = 0.62); $t(44)$ = –2.09, p = .042. People with higher education (M = 4.57, SD = 0.51) have declared using Dedication to succeed in both sport and study than people with secondary education (M = 4.09, SD = 0.86); $t(82)$ = –2.02, p = .046. Among people who have experienced scenario 2, people with higher education (M = 4.80, SD = 0.48) more often have declared using Clear understanding of what it takes to succeed in sport and study than people with secondary education (M = 4.07, SD = 0.48); $t(17)$ = –2.99, p = .008. Among people who have experienced scenario 3, people with higher education (M = 5.00, SD = 0.00) have declared using Asking advice to the right people at the right time more often than people with secondary education (M = 3.46, SD = 0.78); $t(14)$ = –3.34, p = .005. People with higher education (M = 4.86, SD = 0.38) have declared using Dedication to succeed in both sport and study more often than people with secondary education (M = 4.15, SD = 0.71); $t(87)$ = –2.63, p = .010. Among people who have experienced scenario 6, people with higher education (M = 4.88, SD = 0.35) have declared using Ability to prioritize what needs to be done more often than people with secondary education (M = 4.15, SD = 0.68); $t(61)$ = –2.97, p = .004 (Table 8).

Table 8. Comparison between people with secondary education and people with higher education: competences used in experience

Scenario	Competences use	Possession		Competence use		*p*
		Both education levels	Secondary education	Both education levels	Secondary education	
Scenario 1	Self-discipline to manage the demands of your study and sport combination (e.g. work independently without the supervision of others)	101 (46.3%)	13 (52.0%)	3.96 (45)	4.70 (10)	.015
	Perseverance during challenging times and in the face of setbacks	89 (40.8%)	10 (40.0%)	4.13 (38)	4.63 (8)	.042
	Dedication to succeed in both sport and study	153 (70.2%)	20 (80.0%)	4.09 (70)	4.57 (14)	.046
Scenario 2	Clear understanding of what it takes to succeed in sport and study	39 (17.9%)	6 (24.0%)	4.07 (14)	4.80 (5)	.008
Scenario 3	Asking advice to the right people at the right time	19 (8.7%)	1 (4.0%)	3.46 (13)	5.00 (3)	.005
	Dedication to succeed in both sport and study	64 (29.4%)	5 (7.2%)	4.15 (82)	4.86 (7)	.010
Scenario 6	Ability to prioritize what needs to be done	70 (32.1%)	8 (32.0%)	4.15 (55)	4.88 (8)	.004

DISCUSSION

The purpose of this study was to describe how the type of education can affect the development of a dual career in high-performance athletes and whether it has any meaning. The studies are consistent with assumptions of all hypotheses, and with previous studies recognized in the literature [10, 15, 7, 12]. A combination of a sports career is possible in both types of education, mainly depending on the nature of the athlete's life experience, but it should be noted that there are significant differences between the groups in terms of competences. Persons with higher education show more flexibility in action and change plans if necessary. Such persons also show perseverance in the face of failures and difficulties, which definitely promotes the development of careers in a dual aspect. They are also characterized by the ability to select priorities that influence decisions and facilitate the combination of education and sports careers. Education broadens horizons and provides greater adaptive skills [15].

This confirms the two hypotheses set out in the study. A person in higher education shows greater self-discipline, which is conducive to combining the field of sport and learning. This should be combined with the individual's overall development, which facilitates the development of a dual career. The more educational and athletic activities that ensure the individual's development, the better it will affect the development of the dual career. The more of seemingly difficult tasks to reconcile, the better we are organized and manage our lives and careers.

Undoubtedly, quantitative (questionnaire) and qualitative (focus groups) research is the strength of this study. Focus on the study allows the group to undergo the whole research process, especially when the group is homogeneous; however, in-depth interviews extend the time of the study research and at the same time make it more difficult to standardize the tools.

The needing for a dual career and promoting it among athletes has many benefits. It provides athletes with health benefits and balanced lifestyle. It positively influences the self-regulation process. It facilitates adaptation to life after sport, preventing an identity crisis, giving better prospects for employment as a result of e.g. extended education.

LIMITATIONS

One of the major limitations of the study was a relatively small sample of university students; therefore, the findings cannot be generalized to the population of students without some reservation. In addition, the design of this study was cross-sectional, and therefore it is not possible to draw reliable conclusions about cause and effect. Moreover, all test data are based on self-report, and the same result can be affected by a typical method of error. In this study, possible cognitive disorders (e.g. the level of intelligence, attention focus, attention span), the family and social situation (e.g. financial status of the family, number of siblings, housing) were not controlled. Future research should use longitudinal designs to control the more interfering variables and use more elaborate and appropriate measures to assess the directionality between the concepts.

CONCLUSIONS

To the Authors' knowledge, this is the first study related to this topic which concerns a particularly large but fairly well-defined in terms of demographics group in the society, mainly of university professional athletes. Therefore, the paper adds to the existing literature. The instruments and measures used in the present study have been standardized and showed adequate validity and reliability.

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