

Jožef Križaj¹
Maja Ulaga¹
Janez Vodičar¹
Bojan Jošt¹

A COMPARISON OF THE VALUES OF SKI JUMPERS

PRIMERJAVA VREDNOT SMUČARSKIH SKAKALCEV

ABSTRACT

The aim of the study was to compare the values of ski jumpers in two different samples at different times. The sample of ski jumpers from year 2005 included 112 participants, and the sample of ski jumpers from year 2015 included 134 participants. The entire sample of ski jumpers ($n = 246$) was divided into three age groups: children aged 12 to 14 years, juniors aged 15 to 17 years, and seniors aged 18 years and older. The respondents were asked to rate the importance of 68 statements which expressed their motives for sports participation by using a five-point Likert scale. The results demonstrated high variability in the mean rankings acquired from the complete sample of ski jumpers. The correlation coefficient between the mean values of all statements ($n = 68$) for the year 2005 to 2015 was high and statistically significant ($r = .82, p < .01$). High and statistically significant correlations ($p < .01$) were also found for all three age groups of ski jumpers. Characteristic differences of specific value statements ($p < .05$) from 2005 to 2015 were only found for five value statements. In 2005 the study, conducted in three age groups of athletes, showed statistically significant differences in seven statements. In 2015 statistically significant differences between the age groups of ski jumpers were found in 25 value statements. Considering the increase in differences in 2015, we can conclude that the differences in the importance of specific values between age groups increase with time and maturation.

Key words: sports, value change, age

¹University of Ljubljana, Faculty of Sport

Corresponding author:

Jožef Križaj

UL, Faculty of Sport

Gortanova 22, 1000 Ljubljana

Slovenia

e-mail: jozef.krizaj@fsp.uni-lj.si

Tel: +386 1 5207 841

IZVLEČEK

Cilj te raziskave je bil primerjati vrednot smučarskih skakalcev v dveh različnih vzorcih ob različnih časih. Vzorec smučarjev skakalcev iz leta 2005 je vključeval 112 sodelujočih, vzorec smučarskih skakalcev iz leta 2015 pa 134. Celoten vzorec smučarskih skakalcev ($n = 246$) smo razdelili v tri starostne skupine: otroci, stari 12 do 14 let, mladinci, stari 15 do 17 let, in člani, stari 18 let in več. Anketiranci so morali oceniti pomembnost 68 trditvev, ki so odražale njihove motive za ukvarjanje s športom, za kar smo uporabili petstopenjsko Likertovo lestvico. Rezultati celotnega vzorca smučarskih skakalcev so pokazali veliko variabilnost v srednjih ocenah. Korelacijski koeficient med srednjimi vrednostmi vseh trditvev ($n = 68$) za leta 2005–2015 je bil visok in statistično značilen ($r = .82, p < .01$). Visoke in statistično značilne korelacije ($p < .01$) so se pokazale tudi pri vseh treh starostnih skupinah smučarskih skakalcev. Značilne razlike v specifičnih trditvah o vrednotah ($p < .05$) od leta 2005 do 2015 so bile ugotovljene samo pri petih trditvah. Leta 2005 je študija, ki je bila opravljena s tremi starostnimi skupinami športnikov, pokazala statistično značilne razlike v sedmih trditvah. V letu 2015 so bile statistično značilne razlike med starostnimi skupinami smučarjev skakalcev ugotovljene v 25 trditvah. Upoštevajoč povečanje razlik v letu 2015, lahko zaključimo, da se razlike v pomembnosti določenih vrednot med starostnimi skupinami povečujejo s časom in zrelostjo športnikov.

Gljučne besede: šport, sprememba vrednot, starost

INTRODUCTION

The fundamental theoretical concept of a culture is composed of values (Schwartz, 2006; Schwartz, 2011). These values are an important part of human motivation and personality; they direct our interests, attitudes, and behaviour (Fischer, 2009; Musek, 1993b; Rokeach, 1973; Schwartz, 2012). Indeed, human values and value orientations may have an important effect on human action (Fischer, 2009; Klostermann & Nagel, 2014; Schwartz, 2012) and are particularly important elements of the motivational systems of athletes (Garcia-Mas et al., 2010; Keegan et al., 2010; Pinter & Smrdu, 2003). Through these systems, values can dramatically impact the athletes' competitive performance. Athletes with low motivation levels will find it hard to summon sufficient energy and willpower to handle exhausting training programmes and perform well under increased competitive pressure.

However, the culture of sports is determined by the specific features of certain sports, and these features can be responsible for different value hierarchies associated with specific sports (Pinter & Smrdu, 2003). The differences in values upheld by people, or, in our case, athletes, may be due to a variety of personal, social, and cultural factors (Fischer & Poortinga, 2012; Gouveia, Vione, Milfont, & Fischer, 2015; Inglehart & Welzel, 2005; Schwartz, 2011; Schwartz, 2012). So far, the decision to participate in a specific sport is also affected by social factors. Certain sports are expensive and considered elite, and therefore inaccessible to many young athletes, regardless of their talent (Kahma, 2012; Scheerder, Taks, & Lagae, 2007). However, sports participation of young people is determined by many factors (Barić, Vlašić, & Cecić Erpič, 2014; Jose & Hansen, 2013; Klostermann & Nagel, 2014). Wheeler (2011) claims that teenagers' propensity to participate in sports is closely related to the acquired 'sporting culture' transmitted by the parents. With regard to sports, values determine a person's attitude toward sports and affect the reasons (motives) for sport participation (Monacis, Estrada, Sinatra, Tanucci, & De Palo, 2013). In general, values may change during one's lifespan (Bilsky et al, 2005, Boehnke & Welzel, 2006; Gouveia et al., 2015; Inglehart & Welzel, 2005; Šukys & Jansonienė, 2012). In this respect, developmental sport psychology emphasises the continuity of development and the developmental phases and transitions which cover the time from the childhood and adolescence to adulthood and maturity (Wylleman & Lavallee, 2004). These developmental phases of young athletes are under the influence of different psycho-social factors which generate the motivational atmosphere of athletes in sports (Keegan, Spray, Harwood, & Lavallee, 2010).

In fact, sports participation of young people is influenced by many factors which determine their attitude towards sports, and this is what led to our interest in identifying the value structure of ski jumpers. We were most interested in the ranking of values ordered by their importance (Schwartz, 2012). The hierarchical value model developed by Musek (1993a, 1993b, 1993c, 2000) was of particular relevance to our research. Musek (2000) presented a hierarchical value model based on two macro categories. The author named these two macro categories according to Friedrich Nietzsche (1872), after the Greek gods Apollo and Dionysus. Apollonian values have been defined as rational behavior and the clarity in human action. Dionysian values have been categorised more as the irrational and chaotic behavior of man. Musek (2000) differentiated both of these macro categories into further subcategories of values: so, Dionysian ideas have been distinguished in hedonistic values as joy, fun, enjoyment, entertainment, and comfort, as well as in status values like power, prestige, recognition, fame, and reputation. Furthermore, Apollonian values have been differentiated in moral values and goal-setting or fulfillment values.

As such, in our research, we focused on three key issues:

1. What is the hierarchy of specific values linked to the ski jumping participation of young people in Slovenia (observed in two different samples and at two time periods, namely in 2005 and 2015)
2. How does the hierarchy of specific values differ between three age groups of subjects (children, junior jumpers, senior jumpers)?
3. Is there any correlation of value statements across the age groups of subjects in a specific observation year, and between both studied years?

In line with these research questions, this study focused on determining the value structure of ski jumpers who demonstrate a clear competition focus in their sport participation. The following objectives were set:

- Determine the value importance rankings as reported by ski jumpers in the years 2005 and 2015.
- Determine the correlation between mean values of all statements (N = 68) for 2005 and 2015.
- Determine the correlation structure of value importance rankings with regard to three age groups (children, junior jumpers, senior jumpers) in 2005, 2015, and between 2005 and 2015.
- Evaluate the relevance of value differences between different age groups (children, junior jumpers, senior jumpers) reported in 2005 and 2015.

METHODS

The composition of the subject sample is given in Table 1.

Table 1
Subject sample composition

Year	Total (N)	Male (N)	Women (N)	Children group (12 – 15 years)	Junior group (15 – 18 years)	Senior group (18 and older)
2005	112	106	6	45	46	21
2015	134	116	18	61	31	42

Note. Number of total replies (N). 6 subjects out of total 246 participants joined both examinations.

The subjects were ski jumpers between 12 and 28 years of age; all of them participated in the regular competitive training process as members of 20 Slovenian ski jumping clubs. The sample for each year under examination (2005 and 2015) consisted of the top-performing Slovenian ski jumpers in their competition classes (six ski jumpers of the whole sample joined both examinations in the year 2005 and 2015). The method used to collect the data was a written modified questionnaire in accordance with Ulaga (2001), which consisted of 68 value statements (Table 2). Typical questions about the motivational background for sports participation were used (see also Gill, Gross & Huddleston, 1983) in order to identify ski jumpers' attitudes. Each of the statements outlined a specific reason (motive) for sports participation. On the basis of the obtained set of statement facts, it was possible to designate the results to the value system in accordance with Musek (1993b);

2000). The internal consistency of the hypothetical value statement model represented by the items of the questionnaire ($N = 68$) was verified by the calculation of Cronbach's alpha ($\alpha = .94$; Križaj, Ulaga & Jošt, 2014). The mentioned study also examined the factor structure of the used research instrument. Twenty-one factors of the value statements were determined on the basis of exploratory factor analysis (Principal Component Analysis with Oblimin Rotation); the obtained factors accounted for 74.2% of the total model variance (Križaj, Ulaga & Jošt, 2014).

However, the respondents ($n = 246$) rated the relevance of each statement on the basis of their personal preferences. All value statements were assessed using a five-point Likert scale, where 1 signified an unimportant value and 5 signified a very important value (Table 2). Participation in the survey (2005 and 2015) was voluntary, and the questionnaire was completed in writing under the same conditions in the same sport facility. All subjects had been notified about the aim and course of the study beforehand. The study followed the ethical guidelines and rules for research with human subjects at the University, and was approved by the Ethical Committee of the Faculty. All information obtained in the questionnaire was and will remain confidential, and used for research purposes only. The data were processed using the SPSS Statistics software package 23.0 (SPSS Inc., Chicago, USA). Statistical analysis included descriptive statistics with a mean value (M) ranking and standard deviation (SD), as well as inferential statistics with Pearson correlation method (r), as well as the Spearman correlation method (R ; rank correlation). One-Way ANOVA Post Hoc Tests were used to detect statistically significant differences in age groups.

RESULTS

The value rankings ($M1$ and $M2$) based on the mean grades calculated from the entire sample of athletes in 2005 and 2015 are given in Table 2.

Table 2
Value importance ratings for 2015 and 2005

Value statements	2015 (N=132)			2005 (N=112)		
	M1	SD	R1	M2	SD	R2
1 I like sports	4.61	0.72	1.	4.46	0.94	4.
2 It is good for my health	4.58	0.65	2.	4.41	0.86	7.
3 I would like to develop my motor skills	4.55	0.68	3.	4.53	0.68	2.
4 Enjoyment	4.52	0.72	4.	4.33	0.76	12.
5 Challenge	4.48	0.70	5.	4.47	0.72	3.
6 I like doing what I'm good at	4.46	0.74	6.	4.46	0.79	5.
7 I would like to develop skills and attributes	4.46	0.67	7.	4.10	0.84	25.
8 I would like to improve the quality of my life	4.44	0.81	8.	4.46	0.72	6.
9 I am motivated by sports achievements	4.39	0.82	9.	4.54	0.76	1.
10 I like to do something useful in my free time	4.38	0.75	10.	4.38	0.74	9.
11 I like to practice	4.36	0.80	12.	4.27	0.81	15.
12 Sport builds my self-esteem	4.36	0.76	11.	3.67	1.08	37.
13 Relaxation	4.35	0.77	13.	4.29	0.81	14.
14 Inner peace	4.33	0.74	14.	3.71	0.98	35.
15 I wish to excel	4.28	0.83	16.	4.37	0.89	10.
16 I like to win	4.28	0.86	15.	4.26	0.91	16.
17 I like to learn new things	4.25	0.71	17.	4.39	0.75	8.

Value statements	2015 (N=132)			2005 (N=112)		
	M1	SD	R1	M2	SD	R2
18 Inner satisfaction	4.24	0.81	18.	4.30	0.90	13.
19 Fair play is important to me	4.23	0.90	19.	3.99	0.95	29.
20 I would like to build my personality	4.21	0.75	21.	4.16	0.92	21.
21 I like to travel	4.21	0.87	20.	4.04	1.06	28.
22 I like to be actively involved	4.21	0.84	22.	3.94	0.96	31.
23 I am motivated by the attractiveness of the sport	4.19	0.85	23.	4.06	0.93	27.
24 Fun	4.17	0.87	24.	4.23	0.86	18.
25 I like to acquire working skills	4.16	0.80	25.	4.16	0.81	22.
26 I like to have a lot of physical energy	4.15	0.89	26.	4.11	0.95	24.
27 I like to develop working habits	4.12	0.90	29.	4.22	0.74	20.
28 I like to meet new friends	4.12	0.88	28.	4.13	0.81	23.
29 It is dynamic	4.12	0.82	27.	3.63	1.07	39.
30 I like to uphold Olympic values	4.09	0.95	30.	3.57	1.04	42.
31 I like the sports equipment	4.08	0.96	31.	3.71	1.12	36.
32 Team spirit	4.06	0.93	32.	4.36	0.83	11.
33 Unpredictability	4.02	0.86	33.	3.60	1.09	41.
34 Excitement	4.00	0.97	34.	4.08	0.96	26.
35 It helps me deal with daily problems	3.97	0.92	35.	3.65	1.01	38.
36 It is good for fitness and physical development	3.95	1.00	36.	3.51	1.08	44.
37 I respect the coaches	3.93	1.01	37.	3.91	1.05	32.
38 I like team work	3.81	1.04	38.	3.98	1.07	30.
39 There is always something new	3.81	1.08	39.	3.14	1.10	56.
40 I like to belong to a sport team	3.76	0.96	40.	3.52	1.01	43.
41 I would like to become physically fit	3.73	1.17	41.	4.23	0.87	19.
42 I like to meet other athletes	3.71	1.10	42.	3.73	1.01	34.
43 Pleasure	3.70	1.06	43.	4.25	1.04	17.
44 I like modern sports venues	3.65	1.01	44.	3.23	1.16	53.
45 I like to express myself through movement	3.64	1.00	45.	3.34	1.16	51.
46 I like to develop my general culture	3.63	1.06	46.	3.45	1.09	46.
47 Competitiveness	3.62	1.07	47.	3.83	1.06	33.
48 I like to learn about sport	3.59	1.11	48.	3.43	1.23	49.
49 I am motivated by the uncertainty of sports achievements	3.57	1.05	49.	2.91	1.05	60.
50 I would like to make a place for myself in society	3.52	1.12	50.	3.44	1.11	47.
51 Playfulness	3.50	1.14	51.	3.04	1.20	59.
52 Safety	3.49	1.18	52.	2.77	1.31	61.
53 I am noticed	3.40	1.15	53.	3.39	1.01	50.
54 I like the attention of the media	3.40	1.20	54.	3.22	1.21	54.
55 I like the sense of importance	3.39	1.02	55.	3.12	1.19	58.
56 I like the popularity	3.34	1.16	56.	3.44	1.05	48.
57 I am motivated by the beauty of movement and sport	3.29	1.10	57.	3.28	1.16	52.
58 I find the achievements of athletes very motivating	3.27	1.29	58.	3.13	1.17	57.
59 I like to dominate other competitors	3.14	1.15	59.	2.62	1.21	64.
60 I feel loyal to a club	3.07	1.46	60.	3.18	1.30	55.
61 I like to get out of the house	3.05	1.20	61.	3.49	1.20	45.
62 I would like to earn money and prizes	2.92	1.19	62.	2.38	1.17	66.
63 I would like to be a sports star	2.90	1.34	63.	2.67	1.22	63.

Value statements	2015 (N=132)			2005 (N=112)		
	M1	SD	R1	M2	SD	R2
64 Media attention to sports	2.83	1.34	64.	2.38	1.10	67.
65 Possibility of acquiring political power	2.48	1.24	65.	2.29	1.21	68.
66 I have nothing else to do	2.47	1.41	66.	2.57	1.33	65.
67 My friends want me to do sports	2.45	1.45	67.	2.70	1.33	62.
68 My parents want me to do sports	2.03	1.47	68.	3.63	1.34	40.
Total	3.81	0.51		3.70	0.61	
M1 to M2 correlation	r = .829 Sig. (2 tailed) = .000					

Note. Number of respondents (N), mean values for the year 2015 (M1) and the year 2005 (M2) with standard deviation (SD); rank for the year 2015 (R1) and the year 2005 (R2). Pearson correlation coefficient (r) for mean values.

Table 3 compares Spearman correlations (rank correlations) of the value importance ratings across three age groups of ski jumpers in 2005, 2015, and between 2005 and 2015.

Table 3
Inter-correlations and intra-correlations of value importance ratings across age groups

Correlations	Children R1_2005	Juniors R2_2005	Seniors R3_2005	Children R1_2015	Juniors R2_2015	Seniors R3_2015
Children R1_2005	1	.91**	.86**	.67**	.74**	.80**
Juniors R2_2005	.91**	1	.92**	.74**	.80**	.84**
Seniors R3_2005	.86**	.92**	1	.76**	.83**	.86**
Children R1_2015	.67**	.74**	.76**	1	.86**	.83**
Juniors R2_2015	.74**	.80**	.83**	.86**	1	.92**
Seniors R3_2015	.80**	.84**	.86**	.83**	.92**	1

Note. ** Correlation is significant at the 0.01 level (2-tailed).

Table 4 shows the results of the Anova test for statistically significant differences in value scaling in three age groups of ski jumpers in both years of examination.

Table 4
Analysis of variance (Anova). Age groups with means (M) and standard deviations (SD) in 2005 and 2015

Value statements	2005				2015			
	Children M (SD)	Juniors M (SD)	Seniors M (SD)	ANOVA F (p)	Children M (SD)	Juniors M (SD)	Seniors M (SD)	ANOVA F (p)
68 My parents want me to do sports	4.00 (1.07)	3.80 (1.26)	3.17 (1.48)	3.59 (0.03)	2.38 (1.58)	2.17 (1.60)	1.43 (0.94)	5.80 (0.00)
49 I am motivated by the uncertainty of sports achievements	3.36 (1.05)	2.91 (0.98)	2.64 (1.10)	3.37 (0.04)	3.80 (1.02)	3.70 (0.79)	3.14 (1.14)	5.50 (0.01)
65 Possibility of acquiring political power	3.18 (1.18)	2.15 (1.16)	1.97 (1.08)	8.58 (0.00)	2.83 (1.25)	2.73 (1.26)	1.81 (0.92)	10.57 (0.00)
59 I like to dominate other competitors	3.32 (1.46)	2.65 (1.12)	2.14 (0.96)	7.26 (0.00)	3.35 (1.12)	3.27 (1.08)	2.74 (1.17)	3.91 (0.02)
63 I would like to be a sports star	3.18 (1.33)	2.69 (1.16)	2.33 (1.15)	3.47 (0.03)	3.43 (1.21)	2.93 (1.20)	2.12 (1.23)	14.42 (0.00)

Value statements	2005				2015			
	Children	Juniors	Seniors	ANOVA	Children	Juniors	Seniors	ANOVA
	M (SD)	M (SD)	M (SD)	F (p)	M (SD)	M (SD)	M (SD)	F (p)
22 I like to be actively involved	4.41 (0.80)	3.89 (0.90)	3.72 (1.06)	3.80 (0.03)	4.25 (0.84)	4.00 (0.74)	4.31 (0.90)	1.31 (0.27)
23 I am motivated by the attractiveness of the sport	3.77 (1.11)	3.98 (0.88)	4.36 (0.83)	3.24 (0.04)	4.28 (0.90)	4.10 (0.76)	4.12 (0.83)	0.68 (0.51)
61 I like to get out of the house	3.82 (0.96)	3.67 (1.12)	3.03 (1.34)	4.32 (0.02)	3.20 (1.27)	3.20 (1.10)	2.74 (1.13)	2.16 (0.12)
57 I am motivated by the beauty of movement and sport	3.82 (0.91)	3.13 (1.13)	3.36 (1.27)	2.86 (0.06)	3.82 (1.02)	3.70 (0.84)	3.33 (1.03)	3.07 (0.05)
54 I like the attention of the media	3.14 (1.25)	3.00 (1.21)	3.61 (1.10)	2.94 (0.06)	3.67 (1.11)	3.27 (1.28)	3.12 (1.21)	2.88 (0.06)
31 I like the sports equipment	3.64 (1.22)	3.70 (1.11)	3.78 (1.10)	0.11 (0.89)	4.33 (0.86)	4.10 (0.88)	3.69 (1.05)	5.95 (0.00)
42 I like to meet other athletes	3.77 (1.11)	3.81 (0.99)	3.58 (1.00)	0.58 (0.56)	4.23 (0.93)	3.53 (1.01)	3.10 (1.03)	17.32 (0.00)
37 I respect the coaches	3.91 (0.97)	3.93 (1.03)	3.89 (1.14)	0.01 (0.99)	4.20 (0.99)	3.77 (1.01)	3.67 (0.95)	4.20 (0.02)
67 My friends want me to do sports	2.95 (1.40)	2.85 (1.34)	2.31 (1.21)	2.41 (0.10)	2.93 (1.47)	2.63 (1.52)	1.64 (0.93)	11.87 (0.00)
52 Safety	3.05 (1.46)	2.78 (1.25)	2.58 (1.30)	0.85 (0.43)	4.07 (0.95)	3.20 (1.24)	2.88 (1.06)	16.93 (0.00)
51 Playfulness	2.91 (1.31)	3.07 (1.21)	3.06 (1.15)	0.15 (0.86)	3.85 (1.09)	3.30 (1.12)	3.14 (1.09)	5.78 (0.00)
64 Media attention to sports	2.55 (1.18)	2.54 (1.09)	2.06 (1.01)	2.42 (0.09)	3.38 (1.26)	2.83 (1.29)	2.05 (1.08)	14.94 (0.00)
50 I would like to make a place for myself in society	3.59 (1.10)	3.48 (0.97)	3.28 (1.30)	0.63 (0.54)	3.93 (0.92)	3.23 (1.22)	3.14 (1.12)	8.36 (0.00)
28 I like to meet new friends	4.14 (0.83)	4.17 (0.77)	4.06 (0.86)	0.20 (0.82)	4.35 (0.84)	4.03 (0.89)	3.86 (0.87)	4.24 (0.02)
48 I like to learn about sport	3.73 (1.28)	3.44 (1.13)	3.22 (1.33)	1.17 (0.32)	3.97 (1.01)	3.13 (0.97)	3.38 (1.19)	7.37 (0.00)
53 I am noticed	3.64 (1.00)	3.26 (1.05)	3.44 (0.94)	1.17 (0.31)	3.78 (1.11)	3.40 (0.93)	2.86 (1.16)	8.96 (0.00)
27 I like to develop working habits	4.23 (0.75)	4.30 (0.63)	4.11 (0.89)	0.67 (0.52)	3.93 (0.94)	4.10 (0.96)	4.40 (0.73)	3.53 (0.03)
45 I like to express myself through movement	3.41 (1.10)	3.13 (1.26)	3.42 (1.02)	0.84 (0.43)	3.53 (1.00)	3.43 (1.10)	2.83 (1.10)	5.78 (0.00)
40 I like to belong to a sport team	3.55 (1.34)	3.30 (1.25)	2.78 (1.29)	2.89 (0.06)	3.85 (1.26)	2.77 (1.33)	2.17 (1.21)	23.15 (0.00)
16 I like to win	4.27 (0.63)	4.22 (0.92)	4.31 (1.04)	0.09 (0.91)	4.13 (0.91)	4.03 (0.96)	4.67 (0.53)	6.95 (0.00)
39 There is always something new	3.50 (1.34)	3.11 (1.00)	2.97 (1.06)	1.64 (0.20)	4.20 (1.01)	3.53 (1.14)	3.45 (0.97)	8.00 (0.00)
58 I find the achievements of athletes very motivating	3.18 (0.85)	3.19 (1.26)	3.00 (1.22)	0.30 (0.74)	3.95 (0.98)	3.03 (1.25)	2.48 (1.21)	22.21 (0.00)

Value statements	2005				2015			
	Children	Juniors	Seniors	ANOVA	Children	Juniors	Seniors	ANOVA
	M (SD)	M (SD)	M (SD)	F (p)	M (SD)	M (SD)	M (SD)	F (p)
55 I like the sense of importance	3.45 (1.18)	3.22 (1.14)	2.78 (1.22)	2.61 (0.08)	3.68 (1.02)	3.37 (0.96)	2.98 (0.95)	6.39 (0.00)
38 I like team work	4.00 (1.31)	4.06 (0.83)	3.86 (1.22)	0.36 (0.70)	4.15 (0.90)	3.63 (1.10)	3.45 (1.06)	6.62 (0.00)
62 I would like to earn money and prizes	2.18 (1.37)	2.33 (1.08)	2.58 (1.18)	0.90 (0.41)	3.15 (1.30)	3.07 (0.94)	2.48 (1.09)	4.48 (0.01)
17 I like to learn new things	4.32 (0.89)	4.43 (0.69)	4.39 (0.77)	0.16 (0.85)	4.43 (0.74)	4.13 (0.68)	4.07 (0.64)	3.85 (0.02)
66 I have nothing else to do	3.05 (1.40)	2.57 (1.30)	2.28 (1.28)	2.34 (0.10)	2.98 (1.48)	2.47 (1.28)	1.74 (1.04)	11.20 (0.00)
46 I like to develop my general culture	3.73 (1.12)	3.37 (1.12)	3.39 (1.02)	0.91 (0.40)	3.93 (1.07)	3.43 (0.97)	3.33 (1.00)	4.91 (0.01)
56 I like the popularity	3.68 (1.17)	3.41 (1.04)	3.33 (0.99)	0.80 (0.45)	3.65 (1.19)	3.40 (0.97)	2.86 (1.09)	6.32 (0.00)
57 I am motivated by the beauty of movement and sport	3.82 (0.91)	3.13 (1.13)	3.36 (1.27)	2.86 (0.06)	3.82 (1.02)	3.70 (0.84)	3.33 (1.03)	3.07 (0.05)

Note. Statistically significant differences between groups are in boldface.

Table 5 demonstrates the results of statistically significant differences in selected values between three age groups of ski jumpers in 2015.

Table 5

Significant differences in specific value statements between age groups of ski jumpers in 2005 and 2015

Value statements	2005			2015		
	Children Juniors	Children Seniors	Juniors Seniors	Children Juniors	Children Seniors	Juniors Seniors
68 My parents want me to do sports						0.96**
49 I am motivated by the uncertainty of sports achievements			0.73*			0.66**
65 Possibility of acquiring political power	1.03***	1.21**			1.02**	0.92**
59 I like to dominate other competitors		1.18**			0.61*	
63 I would like to be a sports star		0.85*			1.31**	0.81*
22 I like to be actively involved		0.69*				
23 I am motivated by the attractiveness of the sport		-0.59*				
61 I like to get out of the house		0.79*	0.64*			
57 I am motivated by the beauty of movement and sport		0.69*				
54 I like the attention of the media			-0.61*			
31 I like the sports equipment					0.64**	
42 I like to meet other athletes				0.70**	1.14**	
37 I respect the coaches					0.53*	
67 My friends want me to do sports					1.29**	0.99*
52 Safety				0.87**	1.19**	

Value statements	2005			2015		
	Children Juniors	Children Seniors	Juniors Seniors	Children Juniors	Children Seniors	Juniors Seniors
51 Playfulness					0.71**	
64 Media attention to sports					1.34**	0.79*
50 I would like to make a place for myself in society				0.70*	0.79**	
28 I like to meet new friends					0.49*	
48 I like to learn about sport				0.83**	0.59*	
53 I am noticed					0.93**	
27 I like to develop working habits					-0.47*	
45 I like to express myself through movement					0.70*	0.60*
40 I like to belong to a sport team				1.08**	1.68**	
16 I like to win					-0.53**	-0.63**
39 There is always something new				0.67*	0.75**	
58 I find the achievements of athletes very motivating				0.92**	1.47**	
55 I like the sense of importance					0.71**	
38 I like team work					0.70**	
62 I would like to earn money and prizes					0.67*	
17 I like to learn new things					0.36*	
66 I have nothing else to do					1.25**	
46 I like to develop my general culture					0.60*	
56 I like the popularity					0.79**	
57 I am motivated by the beauty of movement and sport					0.48*	

Note. * $p < .05$; ** $p < .01$.

DISCUSSION AND CONCLUSIONS

According to the results of the study (Table 2), ski jumpers gave the highest priority to the sports values which can be classified as Apollonic (Musek, 1993b; Pinter & Smrdu, 2003) and are associated with a predominantly intrinsic motivation (Barić et al., 2014) (*I like sports; It is good for my health; I would like to develop my motor skills; Enjoyment; Challenge; I like doing what I'm good at; I would like to develop skills and attributes; I would like to improve the quality of life; I like to practice; Sports build my self-esteem; Relaxation; Inner peace*). Similar findings are also reported by the study of Guedes & Netto (2013), which highlighted a dominance of values related to skill development and fitness in young Brazilian athletes. Furthermore, the aforementioned values are also at the core of humanistic values (Rokeach, 1973).

In the 2005 study, these Apollonic statements received slightly higher rankings than the competition-based values *I wish to excel* and *I like to win* (Table 2). Considering that ski jumping is a typical competitive sport, we suspected in this case a dominance of Dionysian values in the sense of status values like power, prestige, recognition, fame, and reputation. However, it seems that these aforementioned top-rated Apollonic values could be the reason why Slovenian people participate in ski jumping. On the basis of our results, we can assume that there is a special combination of predominant Apollonic values and intrinsic motivations in a distinct competitive environment which inspire Slovenian athletes to take up the sport.

The subjects of the research in 2015 placed *I like sports* at the top of their value list (Table 2). The statement complies with the Apollonian concept of value evaluation (Musek, 1993b) which

carries emotional and social connotations. It demonstrates a positive attitude towards sports and ski jumping.

Another high-rated value statement in the results of 2005 and 2015 (Table 2) focused on the development of *motor skills* (Tomik, Olex-Zarychta, & Mynarski, 2012), also a fundamental sport value which is evidently very important for ski jumpers. The subjects also placed a lot of importance on the enjoyment of a sports activity (Table 2). According to Sánchez-Miguel, Leo, Sánchez-Oliva, Amado, and García-Calvo (2013), the *enjoyment* of doing a sport can play an important role in the athlete's motivation. Our sample was made up of a group of athletes participating in a typical competitive sport. Generally speaking, this value is considered more important in elite sports (Pinter & Smrdu, 2003) than in recreational sport activities. In this respect, high ratings given to this value are completely expected and understandable. In the long run, high ambitions may lead to a premature end of the athlete's competition career. Coaches who train young ski jumpers should therefore adopt a more educational approach to long-term training of their athletes by minimising the importance of competitive achievements. This would reduce the stress imposed on young athletes and lead to a more creative and efficient long-term training process.

The lowest-rated value statements (Table 2) related to the Dionysian values which are hypothetically associated with extrinsic motivations were reported as follows: *media attention, earning money, and acquiring political power* (Table 2). These statements describe Dionysian values which generally carry a negative connotation in sport. In contrast, these values may, in particular in senior competitors, play an important role in shaping their motivation structure. However, today, elite sports are also professional activities pursued by athletes, and heavily affect their personal and social status.

On the basis of the high and significant correlation coefficient value ($r = .83, p < .001$), we can conclude that a characteristic correlation exists among all value statements reported during the two time periods under observation (Table 2). However, sport as a concept is a social phenomenon (Klostermann & Nagel, 2014), and under the influence of social change. Over a period of 10 years and despite the influence of possible societal changes, the study could not find any significant effects in two different samples on the athletes' attitude towards the fundamental values which determine their sports participation in ski jumping. In this connection, Schwartz (2012) explained that there are stable transcultural values, which persist in individuals or groups regardless of socio-cultural influences. The correlation coefficients of established value rankings by age groups of athletes were used to determine the dominance of intra-correlation coefficients within the selected time period (Table 3). The correlation coefficients for 2015 were quite similar to the correlation coefficients for 2005. The correlation coefficients between the age groups of children and seniors were slightly lower, but they were still high and statistically relevant ($p < .05$). Over a period of 10 years, several values in Slovenian sports, and in ski jumping in particular, may have undergone certain changes. As a result, the correlation coefficients between both time periods are slightly lower. However, the overall correlation coefficients (Table 3) remained very high ($r = .67-.92$) and statistically significant ($p < .01$). On the basis of these results we can conclude that the value hierarchy in terms of value importance (Schwartz, 2012) of the two different samples of Slovenian ski jumpers did not change markedly in the 10 years between 2005 and 2015.

High correlation coefficient values demonstrate the high homogeneity of the value hierarchy of Slovenian ski jumpers regardless of their age group (Table 3).

This was also reflected in the variance analysis results conducted on all value statements. In 2005 and 2015 we were only able to identify five value statements which showed significant evaluation

differences ($p < .05$) between the age groups of athletes (Table 4). Significant and characteristic differences were mainly observed among the youngest and senior jumpers. For example, the parental influence (*My parents want me to do sports*) was expected, in particular within the group of the youngest ski jumpers (Wheeler, 2011). The youngest competitors also still perceive the uncertainty of a sport achievement as a value and a challenge (*I am motivated by the uncertainty of sports achievements*). However, in older competitors who are regularly faced with the expectations of the public, uncertainty may be seen as stress and additional pressure. Significant differences across age groups of athletes responding to the value statement (*Possibility of acquiring political power*) might result from the failure of the youngest athletes to fully comprehend the meaning of this statement. Differences between older and younger participants in the value statement (*I like to dominate other competitors*) may arise out of maturation processes. Older and more experienced competitors perceive their achievements in a more socialised form and are less focused on overpowering the competitors. In respect to the results of the value statement (*I would like to be a sports star*), we could assume that children see sports stars as an ideal, a promise of social recognition, success, and popularity. Older competitors realise that being a sports star may have positive, as well as negative effects (the issue of popularity of elite competitors, constant interest of the media, absence of personal freedom). However, the aforementioned Dionysian values (status values) could predict antisocial attitudes in terms of individuals ego orientation (Lee, Whitehead, Ntoumanis, & Hatzigeorgiadis, 2008). In all five statements the highest mean ratings were reported by children, followed by juniors, and seniors with the lowest mean rankings (Table 4). On the basis of the significant effect of the subjects' age we could conclude that the importance of value statements is dependent on their age. This finding confirms the results of several other research studies (Bilsky et al, 2005, Boehnke & Welzel, 2006; Gouveia et al., 2015; Inglehart & Welzel, 2005; Šukys & Jansonienė, 2012). As age increases, the overall importance of these Dionysian values declines.

In the 2005 study, statistically significant differences across three age groups of athletes were found for five value statements (Table 4). The oldest group of competitors reported relatively high rankings for the statement *I am motivated by the attractiveness of the sport*. After several years, practising a sport is likely to become monotonous, which can clearly be prevented by the attractiveness of the sport. The value statement *I like the attention of the media* also earned the highest ratings from the oldest group of subjects (Table 4). The youngest athletes gave the highest scores to the value statement *I participate in sport because I like to get out of the house*. At the start of the sports career, this value is closely connected with the motive of *I like to travel*. Later, after many years of day-to-day competitions, travelling becomes more and more tiring and stressful.

In the 2015 study, statistically significant differences across three age groups of athletes were found for 25 value statements (Table 5). The situation changed dramatically with regard to 2005 when the figure of statistically significant differences was five times lower. Only two statements (*I like to develop working habits* and *I like to win*) showed a statistically significant higher mean ranking reported by the oldest group of respondents. The values expressed by these statements are associated with the growing maturity of the athletes. On the basis of their experience, they are eventually able to perceive these two values in more depth. In ski jumping, only those competitors who are successful at different levels of competitions can actively compete for a long period of time. Less successful competitors have little chance of pursuing their competitive careers for a long period of time. Moreover, these competitors cannot even classify for international

competitions. Unfortunately, the athlete selection process might be an important ethical and moral issue in sports in order to avoid a drop-off.

According to Musek (1993), the importance of hedonistic and potency values decreases with age, while the relative importance of moral values and the values of life, as well as personal and spiritual fulfilment values increases. In younger years, extrinsic, i.e. Dionysian, values are more expressed, and in the mature period they are replaced by Apollonian, or intrinsic, values.

On the basis of the study, results following the key conclusions can be made:

- Within the hierarchy of value statements, a high variability of mean value importance rankings was determined on a relevant sample of Slovenian ski jumpers. The above results highlight that Slovenian ski jumpers of two different samples in the investigated periods (2005 and 2015) uphold certain important values which affect their participation in this sport.
- Apollonian values linked to the intrinsic motivation of athletes prevailed in the group of highest-rated values.
- The correlation between the mean of all value statements for the years 2005 and 2015 ($r = .82$) was high and statistically significant ($p < .05$). On the basis of high correlation we can make a hypothesis about the high homogeneity of the value hierarchy of Slovenian ski jumpers.
- The evaluation of the importance of the given value statements showed significant differences across the age groups of respondents. Significant differences were observed in both studied years, 2005 and 2015, in only five statements.
- For the five value statements, statistically significant differences were only found in the year 2005. These differences were much higher in 2015, when statistically significant differences were found in an additional 25 value statements (36.7% of all statements).
- The value hierarchy reported by Slovenian ski jumpers is heavily dependent on the age of the subjects and their development stage (Wylleman & Lavallee, 2004). The importance of Apollonian values rises when the subjects grow older and more mature. Values growing in importance are moral values and life, personal, and spiritual fulfilment.

The study showed several very interesting findings about the value systems of athletes, which can help coaches plan and execute the training process for younger, as well as for older ski jumpers. Coaches should respect that young athletes in different age groups engage themselves in sports for many different reasons. Among others, they want to become Olympic champions and sport professionals, as well as they want to develop their motor skills (Tomik, Olex-Zarychta, & Mynarski, 2012) and fitness (Guedes & Netto, 2013). In that regard, the methodical approach of the training process of younger aged athletes should therefore include downstream operations that create a training environment which supports the development of enjoyment (Sánchez-Miguel et al., 2013), moral reasoning, self-discipline, and self-confidence in terms of character, as well as sportsmanship (Monacis et al., 2013; Stoner, 2004). Minimising the importance of competitive achievements could be, in this case, a good methodical measure. However, on the basis of the findings of the study, coaches could adapt their training programs to the value system of the athletes with regard to their age. This measure would make the training more ethically and rationally acceptable for ski jumpers (Shields & Bredemeier, 2001), who are clashing in a very challenging and highly competitive environment. Such focused practice is not only more efficient, but also more humane.

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