

# DIFFERENCES IN SELF-ASSESSMENT OF PREPAREDNESS OF WRESTLERS BEFORE COMPETITION

<https://doi.org/10.5817/CZ.MUNI.P210-9631-2020-6>

---

Kristijan Slačanac<sup>1</sup>, Nenad Žugaj<sup>2</sup>

<sup>1</sup>Central State Office for sport, Zagreb, Croatia

<sup>2</sup>Faculty of kinesiology, University of Zagreb, Zagreb, Croatia

## ABSTRACT

*Purpose:* The main goal of this research was to establish differences in self-assessment of preparedness of Greco-Roman wrestlers in different age groups before a competition.

*Methods:* The sample of subjects consisted of Greco-Roman wrestlers (n=223) divided into three age groups (cadets n=76; juniors n=69; seniors n=78). Self-assessment of preparedness was determined immediately before official weighing (approximately 16 hours before official weighing) using a survey questionnaire on the Likert scale of 1 to 5. Descriptive statistical parameters were present. The wrestlers' success was determined by analysis of official bulletin from national championships. The correlation between self-assessment of preparedness and success was determined by a linear regression analysis. Statistically significant differences between the groups were determined by the Mann-Whitney test.

*Results:* Most cadets (35.5% of subjects) estimate that they are completely prepared for a competition comparing to juniors. Seniors and juniors carefully evaluated preparedness for a competition. Seniors (42.3% of subjects) estimate that they are somewhat prepared, while juniors (43.5% of subjects) estimate that they are highly prepared for a competition. Furthermore, results of linear regression indicate relation ( $R = 0.203$ ;  $p = 0.002$ ) between self-assessment and success of Greco-Roman wrestlers. In addition, statistically significant differences between cadets and juniors ( $p = 0.033$ ) were confirmed as well as between cadets and seniors ( $p = 0.001$ ) in variable self-assessment of preparedness for a competition.

*Conclusion:* Statistically significant relation between self-assessment and success indicates that wrestlers with a high level of self-assessment have better success as well as self-confidence in wrestling competition. The differences between age groups of Greco-Roman wrestlers in variable self-assessment of preparedness emphasize importance of realistic and achievable goals in young age groups of wrestlers. Setting unrealistic goals can lead to frustrations or giving up on practicing wrestling. Therefore, individual approach to the mental preparedness of young wrestlers before a competition is very important, especially setting and realization of achievable goals. In this way, positive experience from a competition will raise the level of self-confidence in young age wrestlers.

**Keywords:** wrestling; Greco-Roman; focus; self-confidence; motivation; success

## Introduction

According to international rules (UWW, 2019), wrestlers are competing in different age groups (boys, cadets, juniors, and seniors). In wrestling as a sport with three Olympic disciplines, it is important to have the strength and mental preparedness for a competition. Under the preparation period of wrestlers for a competition, there are lot of factors that affect the best results such as

strength, coordination, speed, agility, flexibility, etc. What is important for success in wrestling is not only a high level of strength preparedness but also a good mental preparation. In the field of psychological preparedness of wrestlers, there are scientific papers about goal orientation (Bahrami & Yousefi, 2014; 2015; Han, 2008; Karninčić, Baić & Slačanac, 2016; Slačanac, 2017; Slačanac, Karninčić & Baić, 2017).

The main problem in practice is the absence of mental preparedness or insufficient knowledge in the field of mental preparedness. This is especially evident in young age wrestlers, which results in angry behavior after a defeat and has a hindering impact on competition placement as well as not achieving the set goals (Karninčić et al., 2018). To prevent the appearance of negative emotional states or frustration and withdrawal from practicing wrestling, it is important to know the importance of self-assessment of preparedness and their relation with success in wrestling. Also, it is very important to know the differences between the age group so that we can access the individual mental preparation of the wrestler for a competition.

This research focuses on two issues. The primary goal of this study was to determine differences in self-assessment preparedness for a competition of wrestlers between different age groups. Therefore, the second goal was to establish a relation between self-assessment preparedness and success of Greco-Roman wrestlers.

## **Methods**

The data for this survey are part of Ph.D. research "Relation between rapid weight loss and competitive efficiency of wrestlers" (Slačanac, 2017). The sample of subjects consisted of 223 wrestlers, who participated in the Croatian National Greco-Roman wrestling championship. The subjects were divided into three age groups according to international wrestling rules (UWW, 2019); the first group refers to cadets (n=76), the second group refers to juniors (n=69) and the third group refers to seniors (n=78). The sample of variables comprises variables of anthropometric characteristics, wrestlers experience self-assessment of preparedness and success on a competition. Self-assessment of preparedness before a competition was estimated with the occasional questionnaire in the Croatian language. The survey of subjects was conducted immediately before official weighing (approximately 16 hours before a competition). The question for estimating self-assessment of preparedness for the competition was: "for this competition I am ready?". Subjects estimated their own preparedness on Likert scale by answers offered from 1–5 (1 – not prepared; 2 – little prepared; 3 – somewhat prepared; 4 – very prepared; 5 – completely prepared). Preparedness means physical condition, technical and tactical as well as mental preparedness for a wrestling competition. Wrestlers' success was determined by analysis of official reports from the competition (CWF, 2014a, 2014b, 2014c).

In this paper, basic statistic parameters (mean, standard deviation, minimum and maximum) are presented. The relation between self-assessment and success is established by linear regression analysis, whereas statistically significant differences between the groups were determined by the Mann-Whitney test. All the data were analyzed using IBM SPSS Statistics, version 20.0 (IBM SPSS Inc., Chicago, IL).

## **Results**

Observing frequencies (Table 1), self-assessment of preparedness varies depending on the age group. Most cadets (35.5% of subjects) estimate that they are completely prepared for a competition compared to juniors. Seniors and juniors carefully evaluated preparedness for competition. Seniors (42.3% of subjects) estimate that they are somewhat prepared, while juniors (43.5% of subjects) estimate that they are very prepared for a competition.

**Table 1** Frequencies table and descriptive analysis of results

PREPAREDNESS	cadets		juniors		seniors	
	n=76		n=69		n=78	
	f	%	f	%	f	%
not prepared	0	0	1	1.4	1	1.3
little prepared	6	7.9	6	8.7	5	6.4
somewhat prepared	14	18.4	19	27.5	33	42.3
very prepared	29	38.2	30	43.5	28	35.9
completely prepared	27	35.5	13	18.8	11	14.1
<b>Min–Max</b>	2.0–5.0		1.0–5.0		1.0–5.0	
<b>Mean ± SD</b>	4.0 ± 0.9		3.7 ± 0.9		3.6 ± 0.9	

The descriptive parameters variable for self-assessment of preparedness and ranking are presented in Table 2. The results indicate that cadets have the largest average values in variable self-assessment compared to juniors and seniors. The values range in the variable ranking from 1<sup>st</sup>–18<sup>th</sup>. Average values of anthropometrical characteristics of juniors and seniors is referred in body mass and body height as well as experience compared to cadets.

**Table 2** Descriptive statistics

Variables	cadets (n=76)		juniors (n=69)		seniors (n=78)	
	Mean ± SD	Min–Max	Mean ± SD	Min–Max	Mean ± SD	Min–Max
<b>Age (years)</b>	15.6 ± 0.9	14.1–17.1	18.1 ± 1.1	16.1–20.2	22.7 ± 4.5	17.1–41.4
<b>Body mass (kg)</b>	64.0 ± 12.8	40.8–98.0	73.3 ± 6.1	49.5–119.5	77.9 ± 15.0	56.7–129.7
<b>Body height (cm)</b>	173.8 ± 7.9	148.0–190.0	176.4 ± 6.1	160.0–190.0	177.5 ± 93	140.0–199.0
<b>Experience (years)</b>	5.1 ± 2.5	1.0–11.0	7.4 ± 2.6	2.0–14.0	10.7 ± 5.1	1.5–27.0
<b>Ranking</b>	5.8 ± 3.9	1.0–17.0	6.3 ± 4.5	1.0–16.0	6.6 ± 4.1	1.0–18.0
<b>Self-assessment</b>	4.0 ± 0.9	2.0–5.0	3.7 ± 0.9	1.0–5.0	3.6 ± 0.9	1.0–5.0

Results of linear regression (Table 3) indicate statistically significant correlation ( $p = 0.002$ ) between self-assessment and the success of wrestlers. The correlation coefficient is  $R = 0.203$ , while determination coefficient is  $R^2 = 0.041$  (4% of variance). The standardized coefficient ( $\beta = -0.203$ ) indicates linear changes in value of self-assessment and success.

**Table 3** Linear regression results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Std. Coeffic.	p-level
1	.203	.041	.037	.907	-.203	.002

Note: Unstandardized coefficients  $B = -.909 + 9.626$

Differences between groups were determined by the Mann-Whitney test. The results of the Mann-Whitney test (Table 4) confirm statistically significant differences between cadets and juniors ( $p = 0.033$ ) in self-assessment of preparedness before a competition as well as cadets and seniors ( $p = 0.001$ ). Differences between juniors and seniors were not confirmed. Besides, statistically significant differences were determined in the variables of age, body weight and experience among cadets, juniors, and seniors.

**Table 4 Mann-Whitney test results**

Variables	Cadets vs Juniors			Juniors vs Seniors			Seniors vs Cadets		
	U	Z	p	U	Z	p	U	Z	p
<b>Age (years)</b>	150.5	-9.8	<b>.000</b>	749.5	-7.5	<b>.000</b>	0.0	-10.7	<b>.000</b>
<b>Body mass (kg)</b>	1679.0	-3.7	<b>.000</b>	2150.5	-2.1	<b>.036</b>	1372.5	-5.8	<b>.000</b>
<b>Body height (cm)</b>	2091.0	-2.1	<b>.035</b>	2371.5	-1.2	.214	2142.0	-3.0	<b>.003</b>
<b>Experience (years)</b>	1208.5	-4.7	<b>.000</b>	1549.5	-4.2	<b>.000</b>	822.5	-7.1	<b>.000</b>
<b>Ranking</b>	2519.5	-0.4	.682	2518.0	-0.7	.499	2618.5	-1.3	.208
<b>Self-assessment</b>	2112.5	-2.1	<b>.033</b>	2400.5	-1.2	.232	2097.5	-3.3	<b>.001</b>

## Discussion

Statistically significant differences between groups were determined in variables anthropometric characteristics, age, experience and self-assessment of preparedness for a competition. By comparing results of descriptive parameters in variable experience it can be concluded that cadets start with wrestling practicing at the age of 10.5 and juniors at the age of 10.7. The finding complies with previous research (Baić, Karninčić & Šprem, 2014). Wrestlers with more experience have a great mental as well as conditional preparedness (Han, 2008) and train 15.09 years before they won their first medal on Olympic games or World championship (Karninčić, Baić & Šprem, 2017).

Optimal strength preparation is necessary for success in wrestling. Using the long-distance running contributes to develop specific endurance as well as focus and mental endurance. Through proper conditioning preparation wrestlers can optimally reduce their body mass, keep their weight and achieve some benefits: to be the highest and have greater weight. Mental preparedness is important, so military preparedness of wrestlers is characterized by an optimal level of pre-competitive excitement (Marić, 1985) as well as focus (task orientation) on task (Han, 2008) and positive self-speech. Together they have a positive impact on psychological skills and performance in wrestling (Zakaria, 2012). Depending on experience, seniors have more intrinsic motivation and experience emotional stimulation in that way (Grushko et al., 2016).

Results of linear regression analysis confirm that wrestlers with great self-assessment of preparedness achieve better sports result. Wrestlers with great perceptive competence are more interested, have a higher level of confidence as well as better task orientation. Successful wrestlers are more confident than the less successful wrestlers (Slačanac, 2017). Authors Karninčić, Baić & Slačanac (2017) determined that wrestlers during moderate weight loss have high levels of intrinsic motivation and high value of interest/enjoyment. Competition-induced stress, as well as positive psychological skills that contribute to a state of self-esteem are important for better self-esteem (He, 2014), which can be improved by forgetting defeat, developing positive affirmation towards one's work, documenting success, visualization, etc. (Čerenšek, 2017). It can be said that task orientation during weight loss produces much more satisfaction, leading to better performance at competitions (Farkhondeh & Maghaddam, 2015), and it is logical that 87% of wrestlers tend to be task-oriented (Bahrams and Yousefi, 2004) and despite weight loss more task-oriented (Slačanac, Karninčić & Baić, 2017). The task orientation can be developed and influenced by the level of training, fitness, stress tolerance, attitude and approach, perceptual abilities, patience, anxiety, etc. (Čerenšek, 2017). In contrast, ego-oriented athletes will have a greater degree of arousal (Halvari, 1990), so competitive pressure on the body of young wrestlers will significantly reduce physical capacity (Korjenevsky & Podlivaev, 2011).

In this research, statistically significant differences between cadets and seniors in variable self-assessment of preparedness for competition were determined. The largest differences are visible in numerical values of self-assessment of preparedness. This means that more cadets express that

they are very or completely prepared compared to seniors. This relation can be described by more experience, better knowledge of their capabilities, competition in the tournament and giving greater importance to the competition (Karninčić, Baić and Slačanac, 2016). Wrong self-assessment of preparedness in younger age groups (older boys and cadets) or failure to achieve a goal can lead to frustration, anger or even quitting practicing wrestling. That is especially important if we know the fact that wrestlers won their first medal on Olympic games or World championship after 15.09 years of training (Karninčić, Baić & Šprem, 2017). Therefore, it is very important to set realistic and achievable goals, which is a very important factor in preventing disappointment and frustration, especially for younger age groups of wrestlers.

By achieving goals, it is possible to develop positive experiences related to an event, so that wrestlers develop a sense of security in themselves and increase their confidence. Therefore, goal setting is very important in the process of confidence development. Goal setting should be SMART - specific, measurable, achievable, realistic and timed (Čerenšek, 2017).

## Conclusion

Differences in anthropometric characteristics may be important in terms of manifestation of maximal power, but also of greater appearance, and may affect the psychological state, that is, they may have a positive effect on the level of wrestling. Fitness training and athletic training, mental pre-competition preparation is also important, especially in relation to intrinsic motivation and goal orientation. It is assumed that, because of previous competition experience, confidence, and proper goal setting, seniors better evaluate their pre-competition status than cadets. The relation between self-assessment of preparedness and placement indicates a statistical correlation ( $p = 0.002$ ), so wrestlers with a higher level of self-assessment preparedness achieve better placement. This indicates a high level of perceived competence, confidence, and task orientation in pre-competition wrestlers. Statistically significant differences between groups of wrestlers are reflected in setting realistic and achievable goals in seniors then cadets. Setting unrealistic goals in younger age groups of wrestlers can cause negative emotional states (anger, frustration, etc.) and even giving up practicing wrestling. Therefore, it is very important to individually (mentally) prepare young wrestlers before the competition, especially when setting and achieving realistic goals, thus developing positive competing experiences and raising self-confidence.

## Acknowledgment

*This paper was part of doctoral thesis by Kristijan Slačanac under the name "Relation between rapid weight loss and competitive efficiency of wrestlers".*

## References

- Bahrami, F. & Yousefi, B. (2004). *The investigation of the relationship between the target-based orientation and the self-confidence resources of wrestlers*. Master thesis. Borudžerd: Broujerd Azad University
- Baić, M. (2006). *Razlike između vrhunskih poljskih i hrvatskih hrvača različitih stilova, dobi i težinskih skupina u prostoru varijabli za procjenu kondicijske pripremljenosti*. (doctoral thesis) Zagreb : Kineziološki fakultet, 5.06. 2006, 256 str.
- Baić, M., Sertić, H., Milanović, D., Starosta, W., Cvetković, Č. (2006). Diagnostics of physical abilities of wrestlers in Croatia // *Proceedings of 1st World Scientific Congress of Combat Sports and Martial Arts* / Cynarski, J., Kalina, R. M. ; Obodynski, K. (ur.). Rzesow: Ministry of Defence, 2006. 83–84

- Baić, M., Karninčić, H. & Šprem, D. (2014). Beginning age, wrestling experience and wrestling peak performance-trends in period 2002 – 2012. *Kinesiology*, 46(1), 94–100
- Čerenšek, I., (2017). *Mentalni trening: priručnik za trenere*. Zagreb: Conversatio centar za edukaciju i savjetovanje
- CWF – Croatian wrestling federation, (2014a). Official bulletin of senior GR national championship. Retrieved from <http://hhs.hr/documents/20140525rezultati-ph-seniorigr-729.pdf>
- CWF – Croatian wrestling federation, (2014b). Official bulletin of junior GR national championship. Retrieved from <http://hhs.hr/documents/20140315-rezultati-ph-juniori-gr-petrinja-693.pdf>
- CWF – Croatian wrestling federation, (2014c). Official bulletin of cadet GR national championship. Retrieved from <http://hhs.hr/documents/20140223prvenstvohrvatskezakadete-gr-nacinom/-rezultati-ph-680.pdf>
- Farkhondeh, H., & Moghaddam, J. B. (2015). The relationship between the target-based orientation and young wrestlers performance. *Journal of Sport Research*, 1(4), 49–52
- Grushko, A., Bochaver, K., Shishkina, A., Kbanov, D., Konstatinova, M., Vavaev, A. & Kasatkin, V. (2016). Psychological and psychophysiological profile in combat sports. *Revista de Artes Marciales Asiaticas*, 11(2s), 70–71
- Halvari, H. (1990). Effects of achievement motives and sex on wrestling ability and motor performance. *International Journal of Psychology*, (25), 529–543
- Han, T. J. (2008). The relationship among amateur wrestler's achievement goal orientation, self-management and sport self-confidence. *Korean Journal of Sport Psychology*, 19(4), 35–52
- He., Y. (2014). The study of sport psychological skills and coping styles of high-level wrestling athletes. U: J. Xu et al., eds., *Proceedings of the Seventh International Conference on Management Science and Engineering Management (Volume 1)*. Philadelphia: Drexel University. DOI: 10.1007/978-3-642-40078-0\_28
- Karninčić, H., Baić, M. & Šprem, D. (2017). Optimal age to begin with Greco-Roman wrestling and reach peak performance – trends in cases of world-class medal winners of various weight groups // *International Scientific and Professional Conference on Wrestling "Applicable research in wrestling" : proceedings books* / Baić, Mario ; Drid, Patrik ; Starosta, Włodzimierz ; Curby, David ; Karninčić, Hrvoje (ur.). Novi Sad ; Zagreb: Faculty of Sport and Physical Education, University of Novi Sad ; Faculty of Kinesiology, University of Zagreb, 2017. str. 56–62
- Karninčić, H., Baić, M. & Slačanac, K. (2016). Motivational differences in reduction of body mass in wrestling. U: Savović, B., Mandić, R. i Radenović, S., ur., *Conference proceedings of the International scientific conference „Effects of physical activity application to anthropological status with children, youth and adults” Belgrade*, December 10–11th 2016. Belgrade: Faculty of sport and physical education. Pages: 85–88
- Karninčić, H., Baić, M., Slačanac, K, Penjak, A, Jelaska, I. (2018). *Relationship Between Training Experience and Pre-Competition Mood States in Cadet Wrestlers International Journal of Wrestling Science*, 8:2, 9–13
- Korjnevsky, A. & Podlivayev, B. (2011). The influence of competitive pressures on the body of young wrestlers. *International Journal of wrestling science*, 1(2), 7–10
- Marić, J. (1985). *Rvanje klasičnim načinom*. Zagreb: Sportska tribina
- Marić, J., Baić, M. & Cvetković, Č. (2007). *Primjena hrvanja u ostalim sportovima*. / Baić, Mario (ur.). Zagreb: Kineziološki fakultet, 2007

Slačanac, K., (2017). *Relation between rapid weight loss and competitive efficiency of wrestlers*. (doctoral thesis). Faculty of kinesiology, University of Zagreb. Zagreb. Available on <http://dr.nsk.hr/islandora/object/kif:627/preview>

Slačanac, K., Karninčić, H. & Baić, M. (2017). Goal orientation and weight cycling in wrestling. U: Milanović, D. et al., ur., *Proceedings book; "Fundamental and applied Kinesiology – steps forward" 7th international scientific conference on Kinesiology*, Opatija, Croatia. Zagreb: Faculty of Kinesiology, University of Zagreb, str. 558–563

UWW - United World Wrestling, (2019). *International wrestling rules*. Retrieved from [http://united-worldwrestling.org/sites/default/files/2018-12/wrestling\\_rules.pdf](http://united-worldwrestling.org/sites/default/files/2018-12/wrestling_rules.pdf)

Zakaria, A. (2012). Effect of some mental strategies to self-confidence and the level of performance falling on the legs skill and throwing out for freestyle wrestling junior. *World Journal of Sports Science*, 7(1), 24–29