



ISSN: 2456-4419

Impact Factor: (RJIF): 5.18

Yoga 2018; 3(1): 509-512

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www.theyogicjournal.com

Received: 19-11-2017

Accepted: 22-12-2017

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Assessment of physiological characteristics of aerobic power rural areas of intervarsity level judokas of Madhya Pradesh

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Abstract

The purpose of this study was purposive selected from the Methodology the total number of subjects sixty (N=60) subject was selected from the six weight categories (60 kg, 66 kg, 73 kg, 81 kg 90 kg and +90 kg.) from intervarsity level judokas. Age ranged between 18 to 28 years is presented and 10 subjects from each weight category by using Aerobic ability related to physiological variables for the research purpose, Descriptive statistics and Analysis of variance ANOVA with the Post hoc were applied for SPSS-21 software and the following findings were drawn.

Objectives of the study: The first objective of this study to characterize the selected of physiological variables Anaerobic ability of rural area intervarsity level judokas for the deferent weight categories of. Madhya Pradesh The second objective of this study to find out the impact of different weight category on selected physiological variables aerobic ability rural area of intervarsity level judokas for the deferent weight categories of. Madhya Pradesh.

Statistical Analysis: According to objectives of the study to gathering the data Analysis of descriptive statistics were used. (Mean Standard Deviation) to compare the analysis of variance ANOVA with the Post hoc test was applied was applied for SPSS-21 software to analyze and compare of rural and urban areas of intervarsity level judokas of Madhya Pradesh among the various weight category of judokas.

Conclusions According to objectives of the study the following conclusions were drawn: The significance Mean score of selected Physiological Variables (Anaerobic power, 60 rural from the different weight categories (60 kg, 66 kg, 73 kg, 81 kg and +90 kg.) from intervarsity level judokas, Rural areas Madhya Pradesh. There was significance difference mean score f-value, multiple compare among the different weight category (60 kg, 66 kg, 73 kg, 81 kg and +90 kg.) of Rural areas selected

Physiological Variables: (Anaerobic power, of intervarsity level judokas of Madhya Pradesh. significant was set at 0.05.

Keywords: Physiological characteristics, power rural, level judokas

Introduction

The takenouchi-ryu martial art system founded in 1532 is considered the beginning of Japan's Jujitsu forms. Judo was derived from Jujitsu, the art for either attacking others or defending oneself with nothing but one's own body.

The Kodokan Judo: In 1882, Dr. Jigoro Kano (The Father of Judo) made a comprehensive study of the ancient self-defence forms and integrated the best of these forms into a sport which is known as Kodokan Judo.

The term Kodokan breaks down into ko (lecture, study, method), do (way or path), and kan (hall or place). Thus it means "a place to study the way". Similarly judo breaks down into ju (gentle) and do (way or path) or "the gentle way".

Prof. Kano adopted the superlative parts of all the Jujitsu schools, got rid of precarious parts and the Kodokan Judo was recognized in a few years to be excellent since its students overwhelmed the Jujitsu athletes at the Police Bujitsu Contest.

The categorization of Kodokan Judo was completed about 1887. The Kodokan had three broad aims: physical education, contest proficiency and mental training.

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The Founder of Judo Master Jigoro Kano The Olympic Sport: Proceeding with the organization of the Kodokan and enacting the regulations of Judo, Prof. Kano became the first Asian member of the International Olympic Committee in 1909 and worked for the spread of Judo world-wide. Judo became an official event in the Olympic Games of Tokyo in 1964, backed by Judo fans and sport promoters all over the world.

Similarly, to other martial arts, Judo is sub-divided into weight categories as well as being differentiated by gender and grade. Each gender is divided into seven weight categories, with men's weight categories starting at under 60 kg then 60 – 66, 66 – 73, 73 – 81, 81 – 90, 90 – 100 and over 100 kg. Women's weight categories are under 48 kg, 48 – 52, 52 – 57, 57 – 63, 63 – 70, 70 – 78 and over 78 kg.

This grading system allows the competitors to be more equally matched at the events. The Judo grading system incorporates nine different color belts, starting with white color, then red, yellow, orange, green, blue, brown, black and red/white striped. The red/white striped belt denotes a grade of the sixth Dan or higher. Competitive Judo is divided into two categories, blue belt lower and brown belt or higher. It is rare for competitive events not to be organized this way. To attain Dan grade in Judo, Judoka must be at least 15 years old. To progress to a second Dan grade judoka must be minimum age of 20 years old.

Introduction to Exercise Physiology identifies the key scientific content that is critically important to the successful practice of exercise physiology. This text focuses on the profession of exercise physiology by introducing students to the scientific basis for the practice of exercise physiology to prevent or control mind-body diseases, promote health and well-being, and enhance athlete performance. The goal of this text is to embrace a new paradigm of exercise physiology as a comprehensive healthcare profession and not as a one-course experience.

Introduction to Exercise Physiology is endorsed by The American Society of Exercise Physiologists (ASEP), a national non-profit professional organization committed to the advancement of exercise physiologists. The text emphasizes sound scientific content that will help exercise physiologists design appropriate exercise prescription that focuses on the public health challenges of a sedentary lifestyle. Students will learn the necessary physiologic, electrocardiographic, bio mechanic, and anatomic concepts pertinent to prepare for and pass the ASEP Board Certification exam. In addition, the text enables students to understand the ethics of sports nutrition and athletic performance, by examining exercise metabolism, fuel utilization, and cardiovascular functions and adaptations from a non-performance enhancing supplement perspective. Specific physiologic calculations are presented to teach students how to monitor exercise intensity, as well as to improve the safety and credibility of client-specific test protocols, health and fitness training programs, and athletic competitions.

Anaerobic power is power used in high-intensity bouts of exercise lasting fewer than ten seconds; which is the peak amount of time for phosphocreatine reserves to empty as a primary fuel source. It is expressed in terms of watts of force per kilogram of bodyweight.

The anaerobic capacity is the total amount of energy from

the anaerobic (without oxygen) energy systems, that is the combined amount of output for the ATP, phosphocreatine and lactic acid systems. A related measure is the anaerobic threshold or lactate threshold measurements.

Objectives of the study

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2. The second objective of this study to find out the impact of different weight category on selected physiological variables aerobic ability rural area of intervarsity level judokas for the deferent weight categories of. Madhya Pradesh.

Methodology

The total number of subjects sixty (N=60) subject was selected from the six weight categories (60 kg, 66 kg, 73 kg, 81 kg 90 kg and +90 kg.) from intervarsity level judokas. Age ranged between 18 to 28 years is presented and 10 subjects from each weight category by using Aerobic ability related to physiological variables for the research purpose, Descriptive statistics and Analysis of variance ANOVA with the Post hoc were applied for SPSS-21 software and the following findings were drawn.

Statistical Analysis

- According to objectives of the study to gathering the data Analysis of descriptive statistics were used. (Mean Standard Deviation)
- Analysis of variance ANOVA with the Post hoc test was applied was applied for SPSS-21 software to analyze and compare of rural and urban areas of intervarsity level judokas of Madhya Pradesh among the various weight category of judokas. significant was set at 0.05

Findings and Results of the Study Table 1 Descriptive statistics tables

Table 1: Descriptive Statistics Mean and Standard Deviation of Physiological variables (Anaerobic power, impact of all weight category of Rural intervarsity level judokas of Madhya Pradesh.

Variables	Weight Category	N	Mean	Std. Deviation
Anaerobic power	60 kg	10	65.6000	2.75681
	66 kg	10	67.4000	2.83627
	73 kg	10	79.7000	3.02030
	81 kg	10	77.3000	3.40098
	90 kg	10	75.6000	3.47051
	+90	10	74.1000	2.68535
	Total	60	73.2833	5.92350

Table 1 shows Physiological Variables Anaerobic power, of different weight category (60 kg, 66 kg, 73 kg, 81 kg 90 kg and +90 kg.) from intervarsity level judokas, Madhya Pradesh. with the help of descriptive statistics (Mean and standard deviation) of rural areas for this study. Physiological variables Anaerobic power: There was 60 kg, 65.6000±2.75681, 66 kg 67.4000±2.83627, 73 kg 79.7000±3.02030, 81 kg 77.3000±3.40098, 90 kg 75.6000±3.47051 and+90 kg. 74.1000±2.68535,

Table 2: Analysis of Variance for Physiological Variables Anaerobic power for Rural area of deferent weight category of Intervarsity Judokas, of Madhya Pradesh Rural Area

ANOVA						
Variable		Sum of Squares	Df	Mean Square	F	Sig.
Anaerobic power	Between Groups	1325.883	5	265.177	24.424	.000
	Within Groups	586.300	54	10.857		
	Total	1912.183	59			

Table 3 It was reveal that the calculated f- value for Physiological variables (Anaerobic power (24.42), was less than the tabulated f-value is 2.39 (5, 54), and there was significant deferent for Breath holding Capacity (2.010) tabulated f- value was greater than. There was significant

difference between the five Physiological variables, one physiological variable is no significant deferent and selected all weight category from 60 kg, 66 kg, 73 kg,81 kg,90 kg and +90 kg for this study of Rural area of Intervarsity level of Judokas of Madhya Pradesh.

Table 3: Multiple competition (LSD with Post Hoc Test) of Rural Physiological variables Anaerobic Capacity Rural area

S.N.	Group mean						MD	CD
	60 kg	66 kg	73 kg	81 kg	90 kg	+90 kg		
1.	64.9000	66.6000					-1.70000	2.94
2.	64.9000		76.3000				-11.40000*	
3.	64.9000			76.2000			-11.30000*	
4.	64.9000				75.6000		-10.7000	
5.	64.9000					74.1000	-9.20000*	
6.		66.6000	76.3000				-9.70000*	
7.		66.6000		76.2000			-9.60000*	
8.		66.6000			75.6000		-9.00000*	
9.		66.6000				74.1000	-7.50000*	
10.			76.3000	76.2000			.10000	
11.			76.3000		75.6000		.70000	
12.			76.3000			74.1000	2.20000	
13.				76.2000	75.6000		.60000	
14.				76.2000		74.1000	2.10000	
15.					75.6000	74.1000	1.50000	
16.								

Table-3 reveal that the mean value of intervarsity level judokas 60 kg weight category judokas (64.9000), 66 kg weight category judokas (66.6000), 73 kg weight category judokas (76.3000), 81 kg weight category judokas (76.2000), 90 kg weight category judokas (75.6000), +90 kg weight category judokas (74.1000), 60 kg weight category judokas were found inferior to 73 kg weight category, hence it is concluded that there is significant difference between 60 kg weight category judokas and 73 kg weight category judokas and 73 kg weight category judokas obtained mean difference value (MD) (11.40*) which was more than the critical difference value (CD) (2.94). There was significance difference Between 60 kg weight category judokas and 81 kg weight category judokas mean score (76.3) more than the 60 kg weight category judokas obtained mean difference value (MD) (11.30*) which was more than the critical difference value (CD) (2.94), significance difference between 60 kg weight category and 90 kg weight category obtained mean difference value (MD) (9.20*) which was more than the critical difference value (CD) (2.43), Significance difference between 66 kg weight category and 73 kg weight category obtained mean difference value (MD) (9.70*) which was more than the critical difference value (CD) (2.94), 66 kg and 90 kg weight category mean difference MD (9.00*). And 66 kg and +90 kg weight Category mean difference MD (7.50*) there were significance difference which more than the critical difference value (CD) (2.43).

The mean difference value of between 60 kg and 66 kg weight category MD (1.70), 60 kg and 90 kg MD (1.76), 73 kg and 81 kg MD (1.00), 73 kg and 90 kg MD (2.20), 81 kg and 90 kg MD (.600), 81 kg and +90 kg MD (2.10), and 90 kg

and +90 kg MD (1.50) weight categories hence it is concluded that there was no significant difference between intervarsity level judokas obtained mean difference value (MD) which was less than the critical difference value (CD) (2.43).

Discussion of Findings

It was found to have a significant difference between rural areas of intervarsity level of judokas of Madhya Pradesh The reason of these differences can be associated with above results this is probably due to the different nature of the physical components training and pre-requisite for students. Number of participation and level of participation. The reason may be attributed that the physically trained student or level of achievements and taken deferent types nutrition food. These results may be due to a small sample of size and other factors such as different types of body, differences in body composition. These results may be nutrition diet schedule deference. The reason may be psychological variables stress, anxiety, aggression, fear, motivation confidence, attention concentration etc. the six weight categories (60 kg, 66 kg, 73 kg, 81 kg 90 kg and +90 kg.) from intervarsity level judokas. Age ranged between 18 to 28 years is presented in this chapter. The data on balance ability like (Static Balance and Dynamic Balance) intervarsity level judokas, Madhya Pradesh.

Conclusions

According to objectives of the study the following conclusions were drawn:

1. There was insignificance Mean score of Physiological Variables Aerobic power for the different weight

category (60 kg, 66 kg, 73 kg, 81 kg and +90 kg.) of intervarsity level judokas, Rural and Urban areas of Madhya Pradesh.

2. There was no significance tabulated t value between rural and urban areas of balance ability (static and dynamic) for the different weight category (60 kg, 66 kg, 73 kg, 81 kg and +90 kg.) of intervarsity level judokas, Rural and Urban areas of Madhya Pradesh.

References

1. Shigeki Matsuda, Shinichi Demura. Masanobu Uchiyama Centre of pressure sway characteristics during static one-legged stance of athletes from different sports” Journal of Sports Sciences, 2008, 7.
2. Rakesh Kumar Patel, Dr. Rajeev Choudhary Balance ability possessed by handball players pertaining to different playing positions International Journal of Applied Research. 2016; 2(4):481-483. ISSN Print: 2394-7500 ISSN Online: 2394-5869 Impact Factor: 5.2 IJAR 2016; 2(4): 481-483 www.allresearchjournal.com Received: 24-02-2016 Accepted: 22-03-2016.
3. Nagaraja Y, Sureshkumar N. A study on balancing ability among Kuvempu University sports persons in defereent game players International Journal of Physiology, Nutrition and Physical Education. 2019; 4(2):410-412. ISSN: 2456-0057 IJPNPE 2019; 4(2): 410-412 © 2019 IJPNPE www.journalofsports.com Received: 07-05-2019 Accepted: 09-06-2019
4. Sarfraz Alam and Mo. Sameer Khan Effect of six weeks training of balancing yogic asanas on Sai football skills test of male players International Journal of Physiology, Nutrition and Physical Education. 2017; 2(1):81-83. ISSN: 2456-0057 IJPNPE 2017; 2(1): 81-83 © 2017 IJPESH www.journalofsports.com Received: 11-11-2016 Accepted: 12-12-2016
5. Mastram Impact of Frustration Tolerance on the Method of Balancing Conflicting needs in Athletes and NonAthletes School going student International Journal of Physiology, Nutrition and Physical Education. 2016; 1(1):95-97. ISSN: 2456-0057 IJPNPE 2016; 1(1):95-97 © 2016 IJPESH www.journalofsports.com Received: 16-02-2016 Accepted: 17-03-2016
6. Tulu Biswas, Dr. Rajarshi Kar. cross-sectional study of static and dynamic balance among school children “ International Journal of Physiology, Nutrition and Physical Education. 2018; 3(2):1190-1192. ISSN: 2456-0057 IJPNPE 2018; 3(2): 1190-1192 © 2018 IJPNPE www.journalofsports.com Received: 07-05-2018 Accepted: 09-06-2018.
7. Dr. Mansi Bidja, Dr. Khushboo Valodwala, Dr. Sneha Sailor Efficacy of Pilates versus pressure biofeedback on dynamic balance and QoL among elderly individuals: A comparative study International Journal of Physiology, Nutrition and Physical Education. 2018; 3(2):432-435. ISSN: 2456-0057 IJPNPE 2018; 3(2): 432-435 © 2018 IJPNPE www.journalofsports.com Received: 05-05-2018 Accepted: 06-06-2018
8. Dr. Pralay Nayek, Debasis Das, Habib SK. A study on physical fitness and dynamic balance International Journal of Physiology, Nutrition and Physical Education. 2018; 3(2):420-422. ISSN: 2456-0057 IJPNPE 2018; 3(2): 420-422 © 2018 IJPNPE www.journalofsports.com Received: 01-05-2018 Accepted: 03-06-2018
9. <https://www.google.co.in/search?q=introduction+of+physiology&source=lmns&hl=en&ved=2ahUKEwjD5LPSS->

fnAhUI5TgGHaf3Bp8Q_AUoAHoECAEQAA

10. <https://www.medicalnewstoday.com/articles/248791#branches>
11. https://www.google.com/search?rlz=1C1CHBD_enIN868IN868&sxsrf=ALeKk023NMv_cyNlqjSAGllrq57_eDeoYyA%3A1582453389500&ei=jVJSXp-aHtzE4EPyKipwAQ&q=introduction+of+exercise+physiology&oq=introduction+of+exer&gs_l=psy-ab.1.2.0l2j0i20i263j0l2j0i22i30i5.1205.5674..10187...0.0..0.947.1451.5-1j1.....0....1..gws-wiz.....0i13j0i13i30._BA1QzAMsLI
12. <https://www.jblearning.com/catalog/productdetails/9781449698188>
13. https://www.google.com/search?rlz=1C1CHBD_enIN868IN868&sxsrf=ALeKk023NMv_cyNlqjSAGllrq57_eDeoYyA%3A1582453389500&ei=jVJSXp-aHtzE4EPyKipwAQ&q=introduction+of+exercise+physiology&oq=introduction+of+exer&gs_l=psy-ab.1.2.0l2j0i20i263j0l2j0i22i30i5.1205.5674..10187...0.0..0.947.1451.5-1j1.....0....1..gws-wiz.....0i13j0i13i30._BA1QzAMsLI
14. https://www.google.com/search?rlz=1C1CHBD_enIN868IN868&sxsrf=ALeKk03XiFkZGFnMSSnZRvs2vyBRajd_Fg%3A1582455110880&ei=RIISXo2fNYbF4EP0pmjCA&q=meaning+and+definition+of+dynamic++balance+ability&oq=meaning+and+definition+of+dynamic++balance+ability&gs_l=psy-ab.3...824693.830502..831553...0.2..0.645.5341.2-2j6j1j4.....0....1..gws-wiz.....0i71j35i39.XMmbuMX2Tao&ved=0ahUKEwiN2obWwOfnAhWG4jgGHdLMCAEQ4dUDCAs&uact=5
15. https://www.google.com/search?rlz=1C1CHBD_enIN868IN868&sxsrf=ALeKk020ThYHTR4KEEtgcXyWKg1aO7cOw%3A1582455944972&ei=iFxSXpf6Ou3iz7sP_qSa4A4&q=meaning+and+definitions+of+anaerobic+power&oq=meaning+and+definition+of+Anaerobic+power&gs_l=psyb.1.0.33i22i29i30i2.137221.140262..150037...1.2..1.722.2951.2-2j0j1j2j1.....0....1j2..gws-wiz.....0i71j35i39j0.h4pfACXNb44