KINESIOLOGY & COACHING

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Top-level karate: analysis of frequency and successfulness of katas in K1 Premiere League

Key words: *karate, kata*, analysis, performance, World Karate Federation

Abstract

Background. There is limited knowledge on structure of performance in top-level karate kata competition.
Problem and aim. The main goal of the study is to describe the type and frequency of performed katas at the Karate 1 competition and to analyse if different kata have different chances of resulting successfully in top level karate competition.
Methods. All performed katas during eight Karate 1 Premiere leagues in year 2015 were recorded. Competitors' country, sex, name of the performed kata, style of kata, score and results (win or lose) were recorded. Chi-square tests and the odds ratio were conducted. A total of 1,858 katas were performed (1,041 in the male and 817 in the female category).
Results. The most performed kata was Anan from Shito Ryu style. Number of performed katas depends on the number of entries and top-level kata medallists had to perform between 5 and 7 katas. The most successful katas were not used very often and are from Shito Ryu style. They are short and dynamic Heiku, Pachu from Shito ryu style. The most unsuccessful katas are Gankaku and kata Chatanyara Kushanku, and Unsu.
Conclusions. The usage of the more complicated and complex kata does not guarantee victory. Male and female competitors choose different katas.

Introduction

— *Karate* is a martial art originating from Japan. The largest international sport karate organisation, the *World* Karate Federation (WKF), has more than 10 million members in more than 190 member countries and is recognised by the International Olympic Committee (IOC) [Wikipedia 2017; World
— Karate Federation 2017]. In August 2016 the IOC announced that karate would be in the Summer
— Olympic Games Tokyo 2020 [International Olympic Committee 2017] and in December 2016 IOC
— agreed to add karate to the Youth Olympic Games in Buenos Aires 2018.

In karate competition there are two disciplines involved, *kumite* (sparring) and *kata* (forms, sequence of movements which represent various offensive and defensive postures). The simplicity and understandability are the reasons why karate may be considered an attractive and audience-friendly sport. Competitors may enter both kata and kumite competition either as individuals or as part of a team. It is not compulsory to enter both disciplines during competition and in fact due to the training required by each speciality athletes tend to focus early on one of them. In order to achieve top-level performance it is necessary for the coaches to be aware of the structure of sport performance, competition structure and demands on karateka. Detailed analysis of this kind of data can be considered vital for karate and strength and conditioning coaches in terms of physiological as well as tactical preparation of their athletes. Top level karate competition is reaching higher

level and minor mistakes make a considerable difference in athletes' results. For this reason, there is a strong need for conducting detailed research and analysis of the frequency and successfulness of katas chosen by karatekas at top-level competitions.

Previous research in the field of elite karate has been focused mostly on kumite training [Iide *et al.* 2008; Tabben *et al.* 2014; Vechio, Dougall 2015] as well as testing [Ravier, Grappe, Rouillon 2004; Roschel *et al.* 2009; Wong *et al.* 2010; Chaabene *et al.* 2012; Tabben *et al.* 2014; Chaabene *et al.* 2015], physical and psychological issues [Beneke *et al.* 2004; Koropanovski *et al.* 2011; Chaabene *et al.* 2012; Tabben *et al.* 2013], injuries [Arriaza *et al.* 2016; Cierna *et al.* 2017], psychological issues [Boostani, Boostani, Rezaei 2013; Ziaee, Lotfian, Memari 2013] and performance aspects [Koropanovski, Dopsaj, Jovanovic 2008; Chaabene *et al.* 2014; Fernando *et al.* 2015]. There are some studies about karate benefits for children [Padulo *et al.*, 2014] and adults [Chateau-Degat 2010; Anderson 2011; Jansen, Dahmen-Zimmer 2012]. There are very few studies whose aim is to analyse both competition disciplines [Doria *et al.* 2009; Koropanovski *et al.* 2011; Benedini *et al.* 2012] or few studies about time-motion analysis in kumite competition [Koropanovski, Dopsaj, Jovanovic 2008; Tabben *et al.* 2015].

Kata is described [Arriaza 2009] as a prescribed sequence of steps, strikes, and blocks that simulate a fight against several opponents. Karate as a martial art has many styles (schools). Katas included in the official WKF kata list originate from four karate styles: Goju Ryu, Shito Ryu, Shotokan, and Wado Ryu.

In Goju Ryu (10 katas) great emphasis is placed on combining soft circular blocking techniques with quick strong counter attacks delivered in rapid succession. Shito Ryu style uses a large number of katas (43 of them approved for competition) and is characterised by emphasis on power during the execution of techniques. Shotokan (21 katas) is characterised by powerful linear techniques and deep strong stances. Wado Ryu (10 katas) combines basic movements of Jiu-jitsu with techniques of evasion, putting a strong emphasis on softness and the way of harmony or spiritual discipline [Funakoshi 2005].

Studies aimed directly to analyse kata training, physiology or performance are rare [Francescato *et al.* 1995; Vujkov *et al.* 2015] and do not replicate the conditions of top level competition: in one of the studies [Francescato *et al.* 1995] the authors analysed energy cost and energy sources in kata Pinan Shodan, which is a basic kata not performed in top level events; in another study [Vujkov *et al.* 2015] the authors simulated competition with Shotokan kata Unsu. However, in their study, karateka repeated the kata three times in a row, which is something never done in regular competition where kata cannot be repeated.

For kata competition, the WKF approved a list that contains a certain number of katas in each style. The

total number of all katas from the official WKF kata list is 75. In WKF competition, only kata from the official kata list may be performed. During kata competition the elimination system with repechage is applied. Contestants must perform a different kata in each round, which means that once a kata has been performed, it cannot be repeated during the competition, no matter how many rounds the competitor has to go. The number of different katas required depends on the number of individual competitors or teams entered as shown in Table 1.

Table 1. Number of required katas in the competition

Number of competitors	kata required
65 – 128	7
33 – 64	6
17 – 32	5
9 – 16	4
5 - 8	3
4	2

In assessing the performance of a contestant or a team, judges evaluate three main criteria that have the same value in scoring: 1. Conformance to the form itself and the standards of the applicable style (*ryu-ha*); 2. Technical performance comprised of seven criteria: stances, techniques, transitional movements, timing and synchronisation of movement, correct breathing, focus (*kime*: a short isometric muscle contraction performed when a technique is concluded) and technical difficulty; 3. Athletic performance: strength, speed, balance and rhythm. The performance is evaluated from the bow at the beginning of the kata, until the bow ending the kata. The panel of judges for each match consists of 5 members. The chief judge is seated in the centre position facing the contestants and the other four judges are seated at the corners of the squared competition area. Each judge has a red and a blue flag. After completion of both katas (first performed by the competitor with a red belt, second by the one with a blue belt) the chief judge calls for a decision with a blast of the whistle. The judges raise the flags simultaneously. The decision is for red or blue. No ties are permitted. The competitor, who receives the majority of flags, is declared the winner [World Karate Federation 2015].

Competitors choose their katas based on the round of the bout, how challenging is their opponent, and their current training level. The order of katas, however, must be carefully planned as a kata can only be used once in a particular competition. Different techniques, jumps, and length of kata should be taken into consideration as well. All those demands make it essential for karateka to choose their katas tactically.

The main goal of the study is to describe the type and frequency of performed katas at the Karate 1 competition and to analyse if different katas have different chances of success in top level karate competition.

Methods

Data collecting and kata assessment

The study focuses on the 8 consecutive Karate 1 Premiere Leagues held in 2015: January (Paris, France), February (Almere, Netherlands; Sharm el Sheikh, Egypt), May (Sao Paolo, Brazil), September (Istanbul, Turkey; Coburg, Germany), October (Salzburg, Austria), and November (Okinawa, Japan).

The draw records in all individual kata categories for both genders in the Karate 1 Premiere Leagues analysed were obtained from the website of the World Karate Federation [http://www.sportdata.org] for the 8 contests studied.

Data of the performed katas in each round was collected using excel tables with check-off forms that described the competitor's country, sex, name of performed kata, style of kata, number of red and blue flags, success (win or lose) and the round of the competition. No names or any other personal information was registered to guarantee anonymity.

Statistical analysis

Kata distribution is not uniform. Analysis was done only on those katas that have a frequency higher than 10. First, a Chi-quare test was used to analyse if there were statistically significant differences between the kata, the style and the final result of the competition. The success of kata was evaluated with the average of received flags. Preferences for karate kata between males and females and successfulness of the kata are presented with the odds ratio (OR). The data was analysed by IBM SPSS 21.

Results

A total of 841 athletes (477 males and 364 females) were included in the study. This represents all the athletes that participated in the Karate 1 tournaments studied. A total of 929 bouts were analysed (520 in the male category and 409 in the female category). This represents all the bouts that took place during the Karate 1 tournaments analysed. A total of 1,858 katas were performed (1,041 in the male category and 817 in the female category).

Performed styles

Preference for the karate styles was not equally distributed χ^2 (2, N = 1,858), p = .00. The most performed style on Karate 1 tournaments was Shito Ryu (50.5 %), followed by Shotokan (44.7%) and Goju Ryu (4.7 %) (Table 2). No katas from Wado Ryu style were performed. There was one competitor who did katas only from Goju Ryu style. Other competitors mixed katas from Goju Ryu and Shito Ryu style. Two competitors mixed, in their list of katas, katas from Shito Ryu and Shotokan style. Other competitors performed only katas from Shito Ryu or from Shotokan.

Performed styles by gender

The relationship between karate styles and gender was statistically significant, $\chi2$ (2, N = 1,858) = 101.10, p = .00, table 2. Female athletes performed more katas (63.6 %) from Shito Ryu than from Shotokan (32.9 %) style, in contrast with male athletes, who performed more katas from Shotokan (54.0 %) than from Shito Ryu (40.2 %) style. A less performed style of karate katas is Goju Ryu, both in female (3.4%) and in male (5.8%) categories. Competitors used 52 katas out of the 75 kata list (Goju Ryu 6/10, Shito Ryu 27/43, Shotokan 19/21).

Performed katas

Because the distribution of katas was not uniform, katas with a performance frequency of less than 10 were grouped together under the title of "other katas". The frequency of performed katas can be found in table 3. We found significant differences in kata preferences between males and females. Male athletes were more likely to perform Gojushiho Sho, Unsu, Kanku Sho, Kururunfa, Empi, and Sochin katas than female athletes. Female athletes were more likely to perform Annan, Suparinpai, Chatanyara Kushanku, Tomari No Bassai and Papuren katas than male athletes. Male and female athletes were equally likely to perform Paiku, Gojushiho Dai, Nipaipo, Gankaku, Kosokun Sho, Heiku, Kosokun Dai, Unshu and other katas.

Success of styles and katas

A Chi-square test of independence was performed to examine the relationship between performed kata style

Table 2. Kata used according to style and gender χ^2 (2, N = 1,858), p= .00

		Style						Total
		Shito Ryu		Shotokan		Goju Ryu		
		N	%	N	%	N	%	N
Gender	Male	419	40.2%	562	54.0%	60	5.8%	1041
	Female	520	63.6%	269	32.9%	28	3.4%	817
Total		939	50.5%	831	44.7%	88	4.7%	1858

Table 3. Distribution of performed katas and gender preferences (N = 1,858)

kata	Gender				Total		OR	95% CI
	Male		Female					
	Count	%	Count	%	Count	%		
Annan	106	10.2%	124	15.1%	230	12.4%	1.56	1.19-2.06
Gojushiho Sho	135	13.0%	76	9.2%	211	11.3%	0.68	0.51-0.92
Suparinpai	89	8.6%	111	13.5%	200	10.7%	1.67	1.24-2.24
Unsu	127	12.2%	60	7.3%	187	10.0%	0.57	0.41–0.78
Chatanyara Kushanku	70	6.7%	93	11.3%	163	8.8%	1.77	1.28-2.44
Kanku Sho	98	9.4%	35	4.3%	133	7.1%	0.43	0.29-0.64
Paiku	40	3.8%	44	5.4%	84	4.5%	1.41	0.91-2.19
Gojushiho Dai	42	4.0%	41	5.0%	83	4.5%	1.28	0.83-1.98
Kururunfa	50	4.8%	29	3.5%	79	4.2%	0.72	0.45-1.15
Empi	62	6.0%	16	1.9%	78	4.2%	0.31	0.18-0.55
Nipaipo	37	3.6%	33	4.0%	70	3.8%	1.13	0.70-1.83
Gankaku	38	3.7%	20	2.4%	58	3.1%	0.66	0.38-1.14
Sochin	38	3.7%	2	.2%	40	2.1%	0.06	0.02-0.27
Tomari No Bassai	4	.4%	26	3.2%	30	1.6%	8.45	2.94-24.32
Kosokun Sho	12	1.2%	13	1.6%	25	1.3%	1.38	0.62-3.03
Papuren	6	.6%	18	2.2%	24	1.3%	4.63	1.71-12.52
Heiku	6	.6%	14	1.7%	20	1.1%	2.98	1.14-7,80
Kosokun Dai	14	1.3%	6	.7%	20	1.1%	0.54	0.21-1.41
Unshu	7	.7%	9	1.1%	16	.9%	1.63	0.61-4.40
Other katas	55	5.6%	41	6.3%	96	5.9%	0.94	0.62-1.42
Total	1,041	100.0%	817	100.0%	1,858	100.0%		

Table 4. Success of karate styles

		Success				Total		Avg number of received flags (95% CI)	
		Lose		Win					
		N	%	N	%	N	%		
Style	Shito Ryu	424	45.2%	515	54.8%	939	100.0%	2.72	2.60
	Shotokan	471	56.7%	360	43.3%	831	100.0%	2.17	2.04
	Goju Ryu	28	31.8%	60	68.2%	88	100.0%	3.40	2.98
Total		923	49.7%	935	50.3%	1858	100.0%		

and its successfulness (win or lose). The relationship between these variables was significant, $\chi 2$ (2, N = 1,858) = 35.72, p = .00.). Katas from Goju Ryu style had higher success rate with an average of received flags of 3.40 (95% CI 2.98-3.81), followed by katas from Shito Ryu 2.72 (95% CI 2.59-2.84) and Shotokan style 2.17 (95% CI 2.04-2.30). In the final round the most performed katas were from Shito Ryu style. There was a tendency for male athletes to be more successful with katas from Shotokan style than female athletes. On the contrary females seem to be more successful with katas from Shito Ryu style $\chi 2$ (1, N=938) = .733 p= .39, Shotokan, 1; $\chi 2$ (1, N = 835) = 1,910, p = 0.167; Goju Ryu $\chi 2$ (1, N=88) =0.200 p=0.655.

In general, the most successful katas were the shorter ones which were performed less than other katas (Table 4). Kata with a very high risk of losing balance, such as Gankaku, had a very low chance of raising more than three flags. In addition, more complicated and complex katas are less successful (Table 5).

Tables 6 and 7 show that the best 20 male and female athletes performed katas mainly from Shito Ryu and Goju Ryu styles. Less performed katas were from the Shotokan style. Only few athletes used a combination of katas from Shito Ryu and Shotokan styles. The number of katas performed by each athlete depends on how many tournaments they entered during the year and how many rounds they passed at each tournament.

Depending on the number of athletes that participate in a certain competition, the number of kata rounds may vary from four to seven. It can be seen that the most performed katas are shorter in the 1st round: Annan 14.0 per 100 katas (N = 115) and Gojushiho Sho 17.4 performed kata per 100 katas (N = 143, 17.4%). In the 2nd round athletes used Annan 11.1 (N = 47) and also longer katas such as Unsu 10.4 (N=44). We have found that athletes save longer and complex katas for higher rounds. In the 3rd round it was again Unsu 15.2 (N = 40) and Chatanyara Kushanku 12.9 (N = 34). In the 4th round Suparinpai 17.2 (N = 26) and 13.9 (N = 21). In

Table 5. Odds-ratio for each kata (the higher Odds Ratio, the greater the chances of winning with that kata)

Name of kata	Odds Ratio
Heiku	2.94
Empi	2.81
Tomari No Bassai	2.5
Pachu	2.30
Kururunfa	1.94
Paiku	1.9
Nipaipo	1.83
Annan	1.6
Gojushiho Dai	1.5
Kosokun Sho	1.48
Kanku Dai	1.43
Sochin	1.35
Matsumura No Bassai	1.33
Gojushiho Sho	1.18
Suparinpai	0.97
Kanku Sho	0.95
Kosokun Dai	0.90
Unshu	0.84
Unsu	0.67
Chatanyara Kushanku	0.62
Gankaku	0.40
Papuren	0.28

Table 7. Use of the different kata styles amongst the first 20 female ranked athletes

Ranking Position	Ranking Points	Shito Ryu	Shotokan
1	7,639	32	0
2	5,634	4	0
3	3,915	0	13
4	3,722	17	0
5	3,673.5	15	0
6	3,609	14	0
7	2,854	2	0
8	2,728	4	0
9	2,300	11	0
10	2,233	8	0
11	2,073	9	0
12	2,058	18	0
13	1,933	0	3
14	1,734	5	0
15	1,709	3	0
16	1,656	23	0
17	1,611	2	0
18	1,589	18	0
20	1,448	7	5

Table 6. Use of the different kata styles amongst the first 20 male ranked athletes

Ranking Position	Ranking Points	Shito Ryu	Shotokan
1	9,592	28	0
2	6,494	4	0
3	6,118	2	0
4	4,970	12	0
5	4,213.5	14	0
6	3,190	0	7
7	3,138	11	0
8	3,103	6	0
9	2,715	14	0
10	2,391	0	4
11	2,122	12	0
12	1,938	7	0
13	1,774	3	6
14	1,642	10	0
15	1,556	0	13
18	1,394	0	8
19	1,314	0	11
20	1,307	9	0

the 5th round it was Chatanyara Kushanku 13.3 (N=14) and Annan 11.4 (N=24). In the 6th round it was Suparinpai 17.0 (N = 8) and Gojushiho Dai 10.6 (N=5). In the final matches Chatanyara Kushanku 26.7 (N = 8) and Papuren 20.0 (N = 6) were the most performed katas.

In table 8 we created a theoretical/statistical model of kata competitor in Shito ryu and Shotokan style.

Discussion

It appears that competitors are more successful with katas from Shito Ryu than from Shotokan. Some katas are more successful than others, such as Heiku. Some katas were performed more frequently than others, e.g. katas from Wado Ryu style did not appear in 2015 Karate 1 competition at all. Not one of the 841 competitors performed katas exclusively in Goju Ryu style. Those who presented katas from Goju Ryu also included katas from Shito Ryu style. Only two competitors performed the combination of katas from Shito Ryu and Shotokan styles.

Table 8. Model of most performed kata per round and style

Shito Ryu style			Shotokan style	
1st round	Annan	115	1st round	Gojushiho Sho
2nd round	Chatanyara Kushanku	41	2nd round	Unsu
3rd round	Suparinpai	32	3rd round	Kanku Sho
4th round	Paiku	7	4th round	Gojushiho Dai
5th round	Kururunfa	7	5th round	Gankaku
6th round	Nipaipo	2	6th round	Sochin
7th round	Unshu	3	7th round	Kanku Dai

Table 9. shows an overview of the most used katas in separate karate styles.

Shito Ryu style			Shotokan style	
kata	**N**	**%**	**kata**	**N**
Annan	229	12.35	Gojushiho Sho	229
Suparinpai	200	10.78	Unsu	184
Chatanyara Kushanku	163	8.79	Kanku Sho	132
Paiku	85	4.58	Gojushiho Dai	84
Kururunfa	81	4.37	Empi	77
Nipaipo	70	3.77	Gankaku	57
Papuren	31	1.67	Sochin	39
Other katas	4	4.23	Other katas	1
Total	**863**	**50.54**	**Total**	**803**

*We omitted
Goju Ryu 4,7% of all katas

Shotokan style dominated in male categories probably because it appears to be more suitable for males as it contains longer, deeper stances and transitions. Transitions made in greater knee flexion angles, requiring greater quadriceps strength in contrast to Shito Ryu style which is performed in much higher stances, making it easier from a strength and conditioning aspect. That might favour female athletes´ performance, as they tend to use lower knee flexion angles when trying to jump [Gheller *et al.* 2015] due to their different lower body strength [Haines *et al.* 2011].

Shito Ryu style katas were the ones more frequently performed in Karate 1 tournaments. This style also contains a much higher number of katas to choose from, as there are 43 Shito Ryu katas, as opposed to only 21 Shotokan and 10 Goju Ryu katas. It is possible that this variety gives greater advantage to competitors as they can choose katas that are more suitable for their abilities. Gojushiho Sho, Unsu and from Shito Ryu Annan and Suparinpai were the most popular from Shotokan. Possible explanation is that they are safer for athletes, who can perform them properly without the risk of losing balance as there are no stances on one foot and they are relatively short. Among the most frequently performed katas of both styles, there are some that contain combinations and movements that pose higher risk however most of them still seem to be successful. Some of the competitors tactically presume that if they encounter a challenging opponent they would lose even with a more complex kata and their opponent would probably go to the finals, so they keep a more difficult kata for repechage. Our study did not confirm that the usage of longer, challenging katas in first rounds of the competition would ensure victory. For this reason, we recommend to use shorter, less trite katas that would increase their chances of winning. Previous researches determined that shorter katas like Pinan Nidan have lower physical demands 133.6 (SD 22.3) BPM [Francescato *et al.* 1995] than longer katas such as Unsu 188 (SD 13.68) BPM [Vujkov *et al.* 2015].

Our study shows that athletes with higher level of technique probably save their energy for later rounds when they compete with higher ranked athletes. For lower ranked athletes it is sufficient to use shorter katas.

A medallist should have at least 5–7 katas prepared for Karate 1 tournaments. We concentrated on the first round, because 50% of competitors get eliminated at the very beginning. This is the reason why some competitors choose their longer katas for the beginning of the competition i.e. to get as far as possible and to increase their chances of winning a medal or scoring points. One of the shortest katas, Kururunfa, was the most successful with 25 wins out of 31, Gankaku lost 20 times out of 23 performances in the first round.

The impact of the study

This is probably the first published kata competition analysis which provides fundamental basics for tactical pre-bout preparation for coaches and athletes.

Limitations of the study

This study only included data from the Karate 1 competition of the year 2015 organised by World Karate Federation, which may limit the generalisability of the findings (we did not focus on other lower competition level, or on competitions organised by other karate organisations, which may have another rules for kata evaluation), however all katas were performed by top-level kata athletes and judged by high-level qualified judges, which gives the study a robust basis. Although the evaluation of katas is always subjective, the high number of judges evaluating the kata during the match (5) should make the decision reliable enough.

Conclusions

Our study of katas performed at the highest level of world karate showed that the most preferred kata style was Shito Ryu followed by Shotokan. Kururunfa was the most used Goju Ryu kata. The most performed kata was Gojushiho

of Shotokan style and Anan of Shitoryu style. The most successful are shorter dynamic Shito Ryu katas such as Heiku and Pachu. Higher katas Chatanyara Kushanku, Gankaku and Unsu belong to the least successful katas. The victor in top level karate competition does not depend on the level of difficulty of the kata. It seems that the judges do not evaluate only the demand, but mainly the performance of techniques. Shito Ryu competitors have in their repertoire Annan, Suparinpai, Chatanyara Kushanku, Paiku, Kururunfa, Nipaipo and Papuren and Shotokan competitors have Gojushiho Sho,Unsu, Kanku Sho, Gojushiho Dai, Empi, Gankaku, and Sochin, with women choosing less physically demanding katas compared to men. The most successful competitors kept their longest and more difficult katas for the final rounds, or rounds against an equal opponent. We recommend concentrating on less trite kata that would catch the judges' attention. Competitors should prefer shorter, dynamic katas where the intensity does not decrease as it tends to happen in longer katas.

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Karate na mistrzowskim poziomie: analiza częstotliwości i skuteczności *kata* w K1 Premier League

Abstrakt

Tło. Stan wiedzy na temat struktury wyników w zawodach *karate* na najwyższym poziomie jest dość ograniczony.

Problem i cel. Głównym celem badania było opisanie rodzaju i częstotliwości wykonywanych *kata* w zawodach *Karate 1 Premiere League* oraz przeanalizowanie, czy różne rodzaje *kata* dają szanse na powodzenie w zawodach *karate* na mistrzowskim poziomie.

Metody. Zarejestrowane zostały wszystkie *kata* wykonane w czasie ośmiu zawodów *Karate 1 Premiere* w 2015 roku. Zanotowano kraj, płeć, nazwę wykonanych *kata*, styl *kata*, punktację i wyniki (wygrana lub przegrana). Przeprowadzono testy statystyczne chi-kwadrat i iloraz szans. Przeprowadzono łącznie 1 858 *kata* (1041 w kategorii mężczyzn i 817 w kategorii kobiet).

Wyniki. Najczęściej wykonywanym *kata* było *Anan* w stylu *Shito-Ryu*. Liczba wykonanych *kata* zależy od liczby zgłoszeń, a medaliści musieli wykonać od 5 do 7 *kata*. Najbardziej skuteczne *kata* nie były używane bardzo często i były one w stylu *Shito-Ryu*. Były to krótkie i dynamiczne *Heiku*, *Pachu* w stylu *Shito-Ryu*. Najbardziej nieskutecznymi *kata* były *Gankaku, Chatanyara Kushanku* oraz *Unsu*.

Wnioski. Używanie bardziej skomplikowanych i złożonych *kata* nie gwarantuje zwycięstwa. Zawodnicy i zawodniczki wybierali różne rodzaje *kata*.