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PSYCHOLOGY

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Comparison of some psychological skills of male elite and non-elite karatekas dispatched to world competition in Italy (2010)

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Key words: sport psychology, karate, psychological skills, concentration, imagery

Abstract

The purpose of the present study was to compare some psychological skills of elite and non-elite male karatekas, dispatched to Italy World Competition (2010). The statistical population of this study includes all the superior male karatekas participating in the elective competition of Iran's shotokan karate national team in order to dispatch to Italy world competition. South Australian Sport Institute Self - assessment Test (SASI Psych) was used in order to compare subject's psychological skills. The results of comparing the mean of psychological skill variables of two groups showed that there is a significant difference between two groups in concentration and imagery variables ($P < 0.001$). Thus it seems, that in order to obtain the best result in competitions, it is better to use an experienced psychologist coach in athletic teams to prepare the athletes mentally and psychologically.

Introduction

By developing psychology, discussing psychological skills has become more important in performing sport activities. A remarkable development has emerged in the performance of Olympic, professional and collegiate athletes by using psychological skills [Martens 1987]. Psychology is the main factor of sport competition. Nowadays the athlete's psychological factors are typically taken into consideration besides their physical and technical fitness. Physical fitness is not solely the guarantee of success. An athlete will be successful that has psychological fitness too [Nouzari 2008].

The optimal performance of sport skills in championship level, related to physical, technical and psychological fitness. Although the techniques of body building and the ways of skill practicing have wonderfully developed and the difference between Olympic and World champions have decreased to some thousandths of a second and some millimeters, it seems that the difference between

champions performance is mostly concerned with their psychological fitness.

Most sport psychologists believed that in recent years the coaches and athletes have concluded that they need psychological skills more than physical skills in order to achieve their goals [May *et al.* 1995; Morgan, Pollock 1977]. Behboudi [2007] examined elite and non-elite athletes; they found that the most important factor in athlete's success and defeat is related to their psychological skills [Behboudi 2007]. Gould and Weinberg [1995] believed that performing psychological skills such as concentration, self-confidence, controlling psychological level, goal setting, imagery and self-talk is very useful to coaches and athletes [Gould, Weinberg 1995]. Hacker [2000] believed that it is psychological defects that prevent elite athletes from optimal performance in competitions not physical faults and debility [Hacker 2000].

Murphy *et al.* [1990] found that national, international and young elite athletes have better perception in choosing psychological skills [Murphy

Tab. 1. Descriptive indices of elite and non-elite karatekas

Indices	Variables	Superior karatekas group (N=23)		Non-superior karatekas group (N=23)	
		Mean	Standard deviation	Mean	Standard deviation
	Motivation	43.55	2.22	42.95	2.71
	Concentration	41.76	2.31	37.70	2.81
	Self-confidence	43.25	2.28	43.03	2.63
	Controlling psychological level	40.63	1.85	38.72	2.01
	Imagery	41.44	2.01	35.11	3.25
	Goal-setting	39.26	2.62	41.52	2.42

Tab. 2. Results of T-test in order to compare the psychological skills in elite and non-elite karatekas group

Indices	Variables	Mean difference	Std. error difference	t	Sig. (2-tailed)
	Motivation	0.6	0.75	0.11	0.50
	Concentration	4.06	0.81	5.71	0.001
	Self-confidence	0.22	0.77	0.33	0.89
	Controlling Psychological level	1.91	0.68	0.97	0.93
	Imagery	6.33	0.86	6.99	0.001
	Goal- setting	-2.26	0.79	-2.53	0.16

et al. 1990]. Also, Murphy and Jowdy [1992] found that elite athletes can control anxiety, concentration and mental fitness better than the other [Murphy, Jowdy 1992].

Although the content of psychological fitness programs is different in various sport fields and among sport psychologists, based on Vealey's statements all psychological fitness programs have common issues such as concentration, motivation, increasing self-confidence, imagery, goal-setting and self-consciousness skills [Weinberg, Gould 2003].

Scientific experiments clearly determine the importance of imagery in learning and performing motor skills [Gould, Weinberg 1995; Murphy *et al.* 1990]. Also, the studies showed a close relation between goal-setting and athletic success. This matter showed that goal-setting is a successful method for improving athletic performance [Vealey 1988].

The studies have proved lack of motivation and adequate concentration, shortage of self-confidence, negative thought, negative self-talk, stress and anxiety prevent from the athletes' perfect performance.

This study is carried out to examine some psychological skills of superior and non-superior male karatekas in order to obtain comprehensive information about their psychological skills level so, they can detect the weaknesses of their psychological fitness; and the coaches can help the athletes to obtain the peak athletic performance in their future competitions by adopting psychological fitness plans for them.

Method

Formation of this statistical population research consisted of all male karateka who participate in elective competition of shotokan karate national team in Iran for dispatched to World Competition in Italy in the year 2010 of the adults category. Among first, second, and third places in seven categories (28 person), 23 subjects were chosen purposely as elite athletes research and 23 subjects simple randomly from other karateka who did not get rank, non-elite athletes were elected in this research.

In order to compare subjects psychological skills Psychology skills evaluation questionnaire (SASI) was used. Two Australian psychologists Winter and Martin plan this questionnaire and have sixty questions that measure six psychological skills motivation, concentration, self-confidence, controlling psychological level, imagery and goal setting.

The outcome data from questionnaires after classification and with the use of descriptive statistics and inferential statistics (T- test) was analyzed.

Results

Descriptive indices of variables in elite and non-elite karatekas group can be seen in table 1. As it is shown in the table, in the elite karatekas group, motivation variable has the highest mean (43.55) and goal-setting variable has the lowest mean (39.26) among psychological skill variables. In non-

elite karatekas group, self-confidence variable has the highest mean (43.03) and imagery has the lowest mean (35.11) among psychological skill variables.

The results of T-test about comparing psychological skill variables of two groups are seen in table 2. As shown in the table there is a significant difference ($P < 0.001$) between concentration and imagery variables in two groups. It confirms that the level of concentration and imagery variables in elite karatekas is high and it is low in non-elite. There is not a significant difference in other psychological skill variables.

Discussion and Conclusion

The findings of this study showed that there is a significant difference between elite and non-elite karatekas in concentration and imagery; as each athletic field demands special physiological and psychological needs, probably in karate, having high concentration and the ability of imagery are of great importance to karatekas success in competitions.

As karate competitions played by two athletes, the karateka that has higher concentration is more successful than his competitor because it leads thorough consideration to most related stimulant (competitor's action) and indifference toward other stimulants (like spectators clamor); Also, it causes the fact the athlete can predict competitor's actions, react quickly and score a point. In addition, "self-talk" is an important factor that affects athlete's concentration; the karateka's attitude before competition can have an effective impact on his concentration. Optimal self-confidence can also affect concentration [Rezaei, Hashemi 2008]. Also, a karateka can increase his concentration by controlling exciting states. Vealey [1988] declared in his study that sport-confidence in martial arts is very important, since it causes athletes success and changes evaluation of situations from negative to positive. The athletes that are confident in themselves and their abilities become less anxious than others and so, they are less worry about negative thoughts. It causes their concentration increase in competition [Vealey 1988]. Zinsser *et al.* (2001) believed that optimism is very important in martial arts because it increases concentration, effort and accuracy and also it prevents from interfering negative thoughts and excitements [Zinsser *et al.* 2001].

Also it seems that the superior karatekas use mental practices of performing a skill and on higher level for more dominance and preciseness. If imagery performed carefully and correctly, it will have rightful effect on athlete's performances.

Mental practice enables the athlete to do what he wants. In other words it converts his interest to action. Feltz and Landers [1983] showed in their study that practicing by imagery can even be as effective as physical practices [Feltz, Landers 1983]. No one can deny the importance of imagery as an instrument for expanding motor skills. Sometimes most of athletes unconsciously benefit from this skill. Imagery is a skill and needs time and practice as any other skills.

So, imagery practices must be planned in a way that at first help the athletes to notify their feelings and then obtain basic skills of exercising psychological skills and finally prepared an opportunity for them to imagine psychological and motor skills as like as competition situation. Using imagery has a very considerable, among coaches, role in motivating the athletes.

So, with regard to the findings of this study, it seems that in order to obtain the best result in competitions it is better to use an experienced psychologist coach in athletic teams to prepare the athletes mentally and psychologically.

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Porównanie niektórych umiejętności psychologicznych karateków należących i nienależących do elity wybranych na Mistrzostwa Świata we Włoszech (2010)

Słowa kluczowe: psychologia sportu, karate, umiejętności psychologiczne, koncentracja, wizualizacja

Celem niniejszej pracy jest porównanie niektórych umiejętności psychologicznych najlepszych oraz losowo wybranych karateków wysłanych na Mistrzostwa Świata we Włoszech w 2010 roku.

Statystyczna zbiorowość podlegająca badaniu objęła wszystkich karateków płci męskiej biorących udział w eliminacjach do irańskiej drużyny narodowej w karate shotokan, w celu

wybrania odpowiednich zawodników, którzy mieli brać udział w Światowych Mistrzostwach we Włoszech. Aby porównać zdolności psychologiczne zawodników zastosowano test samooceny Południowo-Australijskiego Instytutu Sportowego. Rezultaty porównania średnich zmiennych zdolności psychologicznych dwóch grup wykazały, iż istnieje znaczna różnica pomiędzy tymi grupami w zakresie koncentracji oraz zmiennych wizualizacji ($P < 0.001$).

Opisowa wskaźników zmiennych wśród najlepszych karateków wykazała, że zmienna motywacji ma najwyższą średnią (43.55), a zmienna stawiania celu ma średnią najniższą (39.26) ze wszystkich zmiennych zdolności psychologicznych. W grupie nieelitarnych zawodników zmienna pewności siebie była najwyższa (43.03), a zmienna wizualizacji była najniższa (35.11). Badania wykazały, że istnieje znacząca różnica między najlepszymi i gorszymi zawodnikami w zakresie koncentracji i wizualizacji, które przyczyniają się do odniesienia sukcesu w sporcie. Karateka, który ma większy poziom koncentracji, ma szansę na sukces ponieważ nie rozpraszają go stymulanty w postaci działań konkurenta, ani zewnętrzne dystraktory np. hałas na widowni. Takiemu zawodnikowi jest także łatwiej przewidzieć ruchy rywala, szybciej zareagować oraz zdobyć punkt. Innym ważnym elementem jest motywująca „rozmowa z samym sobą”. Pozytywne nastawienie i wizualizacja poprawiają koncentrację, wysiłek i dokładność oraz niwelują negatywne myśli. Wizualizacja jest umiejętnością, która wymaga umiejętności i czasu.

Rezultaty T-testów przeprowadzone przez autorów pracy potwierdzają opinie licznie cytowanych innych autorów. Stąd wydaje się, że w celu otrzymania najlepszych rezultatów w zawodach lepiej jest korzystać z pomocy doświadczonych psychologów sportowych w grupach sportowców, aby przygotować zawodników psychicznie i psychologicznie.