

Comparison of Locus of Control and Hardiness in Professional and Novice Female Taekwondo Players

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ABSTRACT

The aim of the study is to compare the locus of control and hardiness in skilled and novice Taekwondoka girls. The Statistical society consists of all the female Taekwondo players including skilled, semi-skill and novice Taekwondoka girls in Tehran in 2014. The sample in question was randomly selected using multi-stage sampling method consisting of about total of 180 people in three groups (each groups of 60 people). To collect data, locus of control questionnaires (internal and external) of Rotter and hardiness questionnaire of Kobasa were used. The data were analyzed using statistical method of one way variance analysis. The results indicate the internal nature of the locus of control and hardiness of skilled Taekwondoka girls in comparison with the other two groups. Considering these findings, it could be said that Taekwondo sport will most probably create an internal locus of control for girls and makes them more diligent.

KEYWORDS: Locus of control, Hardiness, Taekwondoka girls

INTRODUCTION

There are a few principles when human being faces every occurrence: to face it courageously and responsibly and to control his life (Frisch, 2006 quoted by Khamseh, 2011). Sports create these principles in individual in long-term (Carr, quoted by Sharifi and etal, 2006). Taekwondo is a sport including show and fight and it could grow by intellectual and physical activities in order to establish and train the link between mind and body. Since a Taekwondo player should be able to predict the actions and strategies of the rival and to understand the input stimuli quickly, doing Taekwondo regularly causes self-motivation, self-control, self-awareness, mental strength and optimism and this creates trust to show that ones' deeds are prior to the results and it creates self-confidence, learning new skills, getting ready for competitive events in the actual world, personal discipline and how to set goals and try to reach them (Anshel and Payne, quoted by Abdoli, 2006), (Anshel, 1997, quoted by Mosadad, 2006).

Also locus of control (internal – external) is a structure that was raised by Rotter in 1966. He believed that the individuals try to control important aspects of their life and the meaning of locus of control was 'generalized expectancy' and this question was raised whether responses such as victory and reward are effective on achieving consequences of the effect or not. However, locus of control is located on a vector between two internal and external extremes. Individuals who believed that positive results are planned as a result of hard work and planning believe that they govern their destiny and are guided from inside and they feel responsible against the life events (Kadivar, (2011),(Schultz, and Schultz, 2005, quoted by Seyed Mohammadi, 2013). This structure can be created by dealing with Taekwondo because it emphasizes on the mental, moral and physical culture and leads to the growth of a healthy character such as accepting responsibility, hardiness, modesty and the ability to control situations (Mohiman et al, 2005).

On the other hand, hardiness is a personality structure and sustainable (Kobasa, 1979) and consists of three main parameters of commitment, control and challenge (Kobasa, Maddi, Khan and Maddi, 1998, (Wieb, 1991). The diligent people feel more committed about the responsibility they have in hand and feel that they govern the situations and continue their efforts to reach objective and do not find the life changes not only a threat, but also use them to progress further. Kobasa, 1979 showed that his trust in his ability helps him face different occurrences (Holahan and Moos, 1985) and this concept also increases independence and improves performance because it creates an opportunity in the course of life tensions to face it effectively and to grow personally and as a result it leads to better intellectual, emotional, coherent and stable behavioral functions (Besharat et al (2008); Bartone (2006), (Maddi (2004 and 2006). Concepts which are similar to hardiness are locus of control (Rotter, 1966), sense of coherence (Antonosky, 1987), self efficacy (Bandura, 1997), optimism (Scheier and Carver, 1988) and resilience (Connor and Davidson, 2003, quoted by Alizadeh, 2013).

With regard to sport psychology, few studies were conducted with regard to the role of sport (here Taekwondo) on locus of control and hardiness (simultaneously), but the results of the conducted studies

regarding other personality trait (which are mainly of coherent type) showed that education of martial arts reduces the degree of raised hostility and the more experienced the individual is in this regard, the less his aggressiveness will be (Jarvis, 1999 quoted by Khajevand, 2001); Anshel and Payne, quoted by Abdoli, 2006). In addition, the athletes have internal and unsustainable evidences to face failure in non-sport areas as well, it means that the created locus of control is also generalized to other events of life and in other words, it means to have an optimistic view toward change (Mohammadzadeh, 2005); (Woods quoted by Mosayebi, 2007) and to have better general health in comparison with others (Shabani Bahar et al, 2010); (Katherine and Hans, 2009). Thus internal locus of control at work is the most important characteristics effective on the challenging conditions and decision-making (Fogarty and Mc Gregor, 2008). Hardiness and resilience can predict the changes regarding sport victory and mental health in athletes (Besharat et al, 2008) because diligent people find sport competitions controllable (Maddi and Hess, 1992) and they have the ability to face change (Farzi et al, 2013). The more their sport experience is, the higher their hardiness will be (Golby and Sheard, 2007). Also female athletes show higher hardiness than female non-athletes and this results from the positive effect of sport on hardiness (Mohammadifar et al, 2010) so that hardiness in healthy female athletes and disabled athletes is equal (Rezaei Farahabadi et al, 2011). Also Jafari and Rafieinia, 2007 referred to the role of coach for more victory. They believed that concentration and visualization can be taught by the trainer, thus visualization is important for the victory of Taekwondo players.

Considering the above points, this study seeks finding out whether the length of time to deal with sport and to acquire its skills can lead to higher hardiness in these athletes or not, also to find out if the locus of control of professional female Taekwondo players is more internal in comparison with the semi-professional and novice individuals or not.

Research goals and hypotheses:

Main goal: The current study compares locus of control and hardiness in skilled, semi-skilled and novice Taekwondoka girls.

Special goal: The study consists of 1. To determine the difference of locus of control in skilled, semi-skill and novice female Taekwondo players and 2. To determine the difference of hardiness in skilled, semi-skill and novice female Taekwondo players and 3. To determine the difference of micro-scales of hardiness in skilled, semi-skill and novice female Taekwondo players

Research hypotheses: They are as follows:

1. There is difference in locus of control in three novice, semi-skill and skilled Taekwondo players.
2. There is difference in hardiness in three novice, semi-skill and skilled Taekwondo players.
3. There is difference among micro-scales of hardiness in three groups of Taekwondo players.

RESEARCH METHODOLOGY

Statistical society and sample:

The statistical society and sample of this study are the female Taekwondo players of 17 years old and above with experience as professional Taekwondo players (4 years and above and holding black belt of dan (rank) 1 above), semi-professional (1-4 years experience and holding red and blue belts) and novice (up to 1 year experience and holding green, yellow and white belts) who were active in sport clubs of Tehran in 2014 and they were 2000 people. The volume of the sample was controlled using multi-stage sampling method (180 people) and the number of individuals at each three groups was 60 that were selected randomly and divided by three groups. It is worth mentioning that the individuals having professional background were divided into two groups of skilled and semi-skill. Thus in practice three groups of Taekwondo players were studied.

Tools to collect data: To measure the locus of control, the questionnaire of locus of control (internal-external) including 29 items was used and the mark for each couple of questions was zero to one (Rotter, 1966). The validity of the two halves for women was reported to be (0.79) (Domino and Domino, 2006, quoted by Besharat et al, 2011). The validity of the tools to retest the different samples with a time interval of one to two months was 0.49 to 0.83. Also the Cronbach's Alpha for the sample of 127 people was calculated to be 0.79 (Besharat et al, 2011). In the current study, also Cronbach's Alpha was calculated for the internal coherence of all the questions (0.87) that indicated the very good internal validity of questionnaire in female Taekwondo players. To test the hardiness, Kobasa's hardiness questionnaire (1989) was used for which he sought the ideas of different experts within 12 years. One of them was Rotter (Jomhori, 2002) and eventually the 50-article questionnaire with three micro-scales of commitment, control and challenge was made. Their scoring was in Likert's four degree method including zero (it is not correct at all) to three (it is completely correct). Cronbach's Alpha for the sample of 119 people was 0.76 and the correlation index of scores in two turns for all the testable

items was 0.84 (Najarian, 2001). The validity with Cronbach's Alpha (0.72) and bisection (0.71) (Ramezani Gol Afzani, 2008) was calculated to be 0.78. In the current study also the Cronbach's Alpha for female Taekwondo players for all the questions was 0.96, for commitment was 0.90, for control was 0.90 and for challenge was 0.86 that indicated a very good internal validity of the questionnaire.

Method of implementation: The method to conduct this study is of post-event type and comparison between locus of control and hardiness are used in three groups of female professional, semi-professional and novice Taekwondo players in Tehran. The implementation method is individual and the findings were studied using descriptive statistics (average, standard deviance), inferential statistics (one way variance analysis test) using statistical analysis software (SPSS).

Findings

The descriptive indicators of scores of locus of control and hardiness are shown in table 1 and the average of scores of locus of control in professional female Taekwondo players is lower than the two other groups. Considering the fact that lower grade indicates the most internal locus of control, the skilled Taekwondo players have more internal control in comparison with the other two groups and the average scores of hardiness and its micro-scales in professional Taekwondo players is higher than the other two groups.

Table 1: Descriptive indicators of scores of locus of control and hardiness in three groups

Variable	Group	Samle	Average	Standard deviation
Locus of control	novice	60	14/66	3/34
	Semi- skill	60	14/60	2/42
	skilled	60	4/10	1/56
Commitment	novice	60	24/55	5/65
	Semi- skill	60	24/78	4/78
	skilled	60	44/67	1/90
Challenge	novice	60	19/73	5/77
	Semi- skill	60	19/98	4/14
	skilled	60	37/97	2/88
Control	novice	60	26/82	5/67
	Semi- skill	60	25/53	4/44
	skilled	60	47/68	1/84
Hardiness	novice	60	71/10	12/71
	Semi- skill	60	70/30	9/99
	skilled	60	130/32	4/16

First hypothesis: There is difference in locus of control in three novice, semi-skill and skilled Taekwondo players.

To study the significance of difference between the averages of locus of control in three Taekwondo groups, one way variance analysis was used. The summary of the results of one way variance analysis in table two showed that since the calculated F for scores of locus of control in three groups of Taekwondo players is significant at level lower than 0.01, it could be said that scores of locus of control in the three groups is different. The results Tukey inspection test in table 3 show that the average locus of control in skilled Taekwondo players is lower than the other two groups, i.e., skilled Taekwondo players have more internal locus of control in comparison with the other two groups.

Table 2: One way variance analysis for locus of control in three groups

Resorce vaariation	ss	d.f	ms	f	Significance
ssb	4438/178	2	2219/089	340/619	0/001
sww	1153/133	177	6/515		
sst	5591/311	179			

Table 3: Results of Tukey inspection test

Group	Mean differential	Standard error	Significance
Novice - Semi skill	0/066	0/46601	0/989
Novice - Skill	10/566	0/46601	0/001
Semi skill - Skill	10/500	0/46601	0/001

Second hypothesis: There is difference in hardiness in three novice, semi-professional and professional Taekwondo players.

To study the significance of difference between the averages of hardiness in three Taekwondo groups, one way variance analysis was used. The results in table four showed that since the calculated F for scores of hardiness in three groups of Taekwondo players is significant at level lower than 0.01, it could be said that

scores of hardiness in the three groups is different. The results of Tukey inspection test in table 5 show that the average hardiness in skilled Taekwondo players is higher than semi-skill and novice Taekwondo players.

Table 4: One way variance analysis for hardiness in three groups

Resource variation	ss	d.f	ms	f	Significance
ssb	142185/07	2	71092/53	765/55	0/001
ssw	16436/98	177	92/86		
sst	158622/06	179			

Table 5: Results of Tukey inspection test

Group	Average difference	Standard error	Significance
Novice - Semi skill	0/8000	1/75940	0/892
Novice - Skill	-59/2167	1/75940	0/000
Semi skill - Skill	-60/0167	1/75940	0/000

Third hypothesis: There is difference among micro-scales of hardiness in three groups of Taekwondo players.

To study the significant difference between the averages of micro-scales of hardiness in three groups, micro-scales of hardiness were considered as the dependent variables and the Taekwondo players of the three groups as the independent variables. One way variance analysis was used for each micro-scale. The results of table 6 show that since the calculated F for the three micro-scales in the three groups is significant at the level lower than 0.01, it could be said that the scores of each three micro-scale in the three groups of Taekwondo players is different. The results of Tukey inspection test in table 7 show that there is a significant difference between professional Taekwondo players with the other two groups, i.e., average commitment, challenge and control in the skilled Taekwondo players is higher than the other two groups.

Table 6: One way variance analysis for micro-scales of hardiness in three groups

subscale	Resource variation	ss	d.f	ms	f	Significance
commitment	ssb	16001/633	2	8000/817	410/909	0/001
	ssw	3446/367	177	19/471		
	sst	19488/000	179			
challenge	ssb	13118/344	2	6559/172	344/705	0/001
	ssw	3468/650	177	19/597		
	sst	16586/994	179			
control	ssb	18553/744	2	9276/872	503/853	0/001
	ssw	3258/900	177	18/412		
	sst	21812/644	179			

Table 7: Tukey inspection test results

subscale	Group	Average differential	Standard error	Significance
commitment	Novice - Semi skill	-0/23333	0/80563	0/955
	Novice - Skill	-20/1166	0/80563	0/001
	Semi skill - Skill	-19/883	0/80563	0/001
challenge	Novice - Semi skill	-0/25000	0/80823	0/949
	Novice - Skill	-18/233	0/80823	0/001
	Semi skill - Skill	-17/9830	0/80823	0/001
control	Novice - Semi skill	1/28333	0/78341	0/232
	Novice - Skill	-20/866	0/78341	0/001
	Semi skill - Skill	-22/1500	0/78341	0/001

DISCUSSION AND CONCLUSION

The goal of this study is to compare the locus of control and hardiness in female skilled, semi-skill and novice Taekwondo players of Tehran. The results of the study showed that skilled Taekwondo players have higher internal locus of control and hardiness than the other two groups and this means the positive effect of sports on these two structures. The results of the study correspond with the theoretical framework of study. Kobasa, 1979 believed that hardiness is like a shield against tension creating conditions and diligent people use it for progress because tension exists for all individuals, but only the ones who are diligent and have more resistance against tension use it for victory and do not give up until they reach their goals (realistic view) (Rotter, 1966). This study also confirms the findings about more internal locus of control and higher hardiness in the female professional Taekwondo players. The professional individuals who played Taekwondo more than 4 years have undoubtedly experienced failure and sometimes despair in executing and learning a technique and have sometimes failed in the matches, but they have not given up trying, but continued their effective attempts

to remove the problem of their work and learned gradually that development needs time (Mohiman et al, 2005). In fact development needs time and this is the same important point that the students of martial arts have learnt well when practicing Taekwondo and they believe that they can reach whatever they want by trying and this is the same more internal locus of control and higher hardiness. This result corresponds with the similar concepts of hardiness too including good coherence (Antonovsky, 1987), self-efficacy (Bandura, 1997), optimism (Scheier va Carvar, 1988), resilience (Connor and Davidson, 2003, quoted by Alizadeh, 2013) because the professional and experienced person has reached the sense of integrity and self-belief and feels qualified in the duties ahead of him to be fulfilled. He is optimistic about change and improvement of result in his favour and does his best and resists against tension (that might happen to anyone) so that he gains his desired victory because this specification is institutionalized in him by time and having prepared psychological conditions of the professional (experienced) Taekwondo player and he is able to generalize it to the other conditions of life (sport and non-sport), and the experienced person can get hold of the other duties and tensions of life by having a more internal locus of control and higher hardiness toward others and this shows the difference between professional Taekwondo players and the other two groups (semi-professional and novice).

One of the restrictions of the current study was that the study was conducted on the athletes over 17 years old due to absence of a suitable questionnaire for the teenagers. Since the society of athletes is comprised mostly of teenagers, it was felt necessary to prepare the suitable tools to them as the teenagers showed very good interest to cooperate in researches. It is suggested that the locus of control and hardiness questionnaire for teenagers to be tailored to make it possible to conduct the study on them and compare them with the groups of young people and adults. To generalize the findings better, it is appropriate that more studies to be conducted in this direction on women, men and different other cities and fields. For example a study to compare champions and non-champions can be conducted in this area or a comparison between men and women could be made. Since a small number of studies has been conducted regarding the locus of control and hardiness on the athletes and the current study confirms the positive role of sport on the two structures, it is appropriate to conduct more studies in this area.

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