THE RELATIONSHIP BETWEEN ATHLETIC IDENTITY AND SPORTS PERFORMANCE AMONG NATIONAL ROWERS DURING DIFFERENT SEASONS OF COMPETITION

Zahra Nili Ahmadabadi, Maesoumeh Shojaei, Afkham Daneshfar

Faculty of Physical Education and Sport Sciences, University of Al-Zahra, Tehran, Iran

Annotation. _Aim:_ Psychologists believe that mental skill like any other skill, can be taught and practiced, and without making use of this factor, it is impossible to achieve peak performance; therefore, elite athletes in different levels and their coaches, shall know about practical concepts and methods of developing mental skills. So, the purpose of this study is to investigate the relationship between athletic identity and sports performance among national rowers during different seasons of competition. _Methods:_ Forty athletes (20 females and 20 males) who were members of the national team with the age mean 23/67 (±3/71) participated in this correlation research. The statistic sample of this investigation was chosen with a special purpose. Athletic identity was measured by Brewer Athletic Identity Questionnaire (AIMS) (1999), and sports performance was measured by 4 physical fitness tests and 4 Proficiency tests in 6 respective stages. The data was analyzed by descriptive statistics, Pearson correlation and Multivariate regression analysis coefficient with P<0.05. _Results:_ The results indicated that there was positive correlation between sports performance and athletic identity during different seasons of competition (P<0.05), but this amount of correlation was different in different seasons of competition. There was significant correlation between athletic identity and sports performance only during the seasons. The results indicated that athletic identity at the end of the training season is a good predictor for athletics success in competition season (P<0.05‹f:7/12). So that 48%of athletic performance in competition season can be predicted from athletic identity scales at the end of the training season. _Conclusion:_ Athletic identity increased as sports performance was enhanced; indicating that there was a significant correlation in this season because of its importance for the athletes. Athletes know that if they have good performance, their role of being an athlete or their athletic identity is stabilized.

Keywords: performance, athletes, identity, rowing.

Introduction

Psychologists believe that mental skills like any other skills, can be taught and practiced, and without making use of this factor, it is impossible to achieve peak performance; therefore, elite athletes in different levels and their coaches, shall know about practical concepts and methods of developing mental skills. As a result, today's coaches and athletes try to make use of scientific achievements and psychological techniques in order to improve their performance and achieve greater success. For this end, sport psychology always considers the two matters of mental health and improving athletic performance (Nili et al. 2011). Nowadays, an important discussion in the science of psychology is "identity''. Today the subject is so important that it has become a main chapter in social studies and has gained a specific status in the theories and researches of social psychologists. Identity has multiple definitions and among these synonymous meanings such terms as "subjective I", "objective I", "we", "cognitive self", "self-image", "self-representation", "self awareness", "self-identity", "self (I)", "superior I" and "personality" could be mentioned (Weinberg et al. 2011). There have been different types of identity and athletic identity is one of them, so that by 1980, athletic identity has been associated with a variety of attitudes and behaviors. Coaches have through the years tried to gain a real knowledge of their athletes' identity in order to help them achieve greater success. In this field, athletic identity has gained an important status (Baysden et al. 1997).

Athletic identity as part of a great self-concept is able to accurately define roles, attitudes, beliefs and behaviors of the athlete and could be considered the base of self–esteem and value that the athlete regards for the role of "self" (Engels et al., 2006). Brewer et al., (1999), states that athletic identity is the degree by which individuals regard themselves as playing the role of an athlete and he believes that high levels of involvement in athletic performance can create high degrees of commitment in them and consequently the athletes consider themselves as perfect athletes. People with high levels of athletic identity, set the value of "self" based on athletic performance and tend to boost their self-esteem through strong athletic identity that later in case of achieving the elite level (such as professional, national, and Olympic level) it develops further. Consequently, most athletes strengthen and adjust their identity based on their achievements in sports (Craft et al., 2008). Research shows that having a strong athletic identity is essential for success in advanced levels of sport. Studies indicate that strong athletic identity leads to more commitment and practice, positive effects on the performance of the athlete, development of social relations and concentration on the goals related to sport (Craft et al., 2008; Danish et al.1983). Just as strong athletic identity would create much commitment in the role of an athlete, in some occasions it causes risks and too much practice. Practicing more than limit is a behavioral model and an emotional condition that more often leads to anxiety, non-workout (in injury and rest) and can lead to using drugs for reinforced function (Grove et al., 2004). Lally., (2007), studied the athletic identity of fifty university swimmers in different seasons (before the season, in preparation season, during competition season and after the season). The results of his study show that swimmers have higher athletic identity during the competition season and after the season compared to the preparation season and before the competition season. On this basis, Lally., (2007),

suggested that competition season be controlled by researchers as an influential variable. Heerden et al., (2007), found no association between athletic identity and performance.

Brewer et al., (2010), studied the changes of athletic identity on injured athletes for 6 months and he stated that the structure of athletic identity was variable and changed as a result of changes in the environment and the conditions of the athlete. Based on what was said, attention to athletic identity is among the factors that influence professional success; since national team athletes face various situations and conditions during the preparation camp and competition season and after it, and athletic identity is a variable factor (Nili et al., 2011), the assessment of its relationship with performance in different seasons seems essential. Despite the importance of this factor in the success of the champions (Nili et al., 2011) this area has been examined less. Given the little research and uncertainties among interested coaches and researchers, this study was designed to answer some questions. The main objectives of this research are:

1) to determine if there is any relationship between athletic identity and athletic performance of the canoe squad before the competition, during the competition and after the competition?

2) To discover if athletic identity predict the success of athletes in different seasons?

Material and Methods

This research is fundamental by general subject and purpose and in terms of method, and is semi-experimental because of investigating the effect of the independent variable of competition seasons that have 6 levels, and is of correlation type due to the investigation of the relationship between the variables. The statistical population included all athletes of national canoe squad in different fields from among whom 40 female and 65 male athletes all members of the national team were purposefully selected as sample based on their specified number in the national team. After explaining the purpose of the research and methodology, their informed consent was obtained, then an athletic identity questionnaire and sport tests of exercise performance during the following six stages were taken: 1) initially entering the camp (3 months), 2) half-season training (3 months), 3) end of the exercise season (3 months), 4) the season (one week), 5) one week after the season, and 6) a month after the season. The study lasted for 1 year.

Measures

Brewer et al., (1999), Athletic Identity Measurement Scale (AIMS) was used to collect information on athletic identity. The questionnaire was first designed in 1993 by Brewer and its validity was tested by Nili and Hadian in Iran. There were 10 questions and the maximum points that could be acquired by athletes were 70. Questionnaire validity was 0.81 and its time reliability were obtained 0.89 through test-retest during two weeks. To collect data about athletic performance, four physical fitness tests (push-up test, sit-up test, running endurance test, chest press test) and 4 skill tests for the discipline (rowing speed test, dribbling test, test of shooting skill from different points, and combined test) were used. For greater certainty, 12 face validity experts confirmed the tests.

Analysis

To summarize and classify the data, descriptive statistic methods (mean, standard deviation) were used. For data analysis, Pearson correlation and regression analyzes were used to predict the performance. Because the scores of athletes' performance test had different measurement units, first, the standard score (Z) for each of them was calculated, then standard scores (Z) of physical fitness and skill were added, and the mean score was considered as a sport performance score. The data was coded, edited and analyzed using SPSS software.

Results

As shown in table 2, there is positive correlation between sports performance and athletic identity during different seasons of competition ($P<0.05$), but this amount of correlation is different in different seasons of competition and rest. There is significant correlation between athletic identity and sports performance only during the seasons (R; 0.539& P; 0.4).

PEDAGOGICS
PSYCHOLOGY

medical-biological
problems of physical
training and sports

Table 1

Mean and standard deviation for athletic identity and sport performance

Six stages	Athletic identity		Sport performance	
	mean	S.D	mean	S.D
initially entering the camp	49/32	10/27	0/00	2/29
half-season training	53/90	5/56	0/00	2/40
end of exercise season	58/55	23/45	0/00	2/20
Competitions season	50/58	7/89	0/00	2/18
one week after the season	58/35	2/72	0/00	1/75
a month after the season	51/35	60/01	0/00	2/49

Table 2

Pearson correlation between athletic identity and sport performance among national rowers during different seasons of competition

six stages	Correlation coefficient	sig
initially entering the camp	0/187	0/429
half-season training	0/295	0/206
end of exercise season	0/302	0/248
Competitions Season	*0/534	*0/040
one week after the season	0/171	0/415
a month after the season	-0/01	0/601

As shown in graph 1, athletic identity increases, as sport performance enhanced and when athletic identity decreased, sport performance decreased in the rest season. This represents that there is positive correlation between sports performance and the athletic identity during different seasons of competitions.
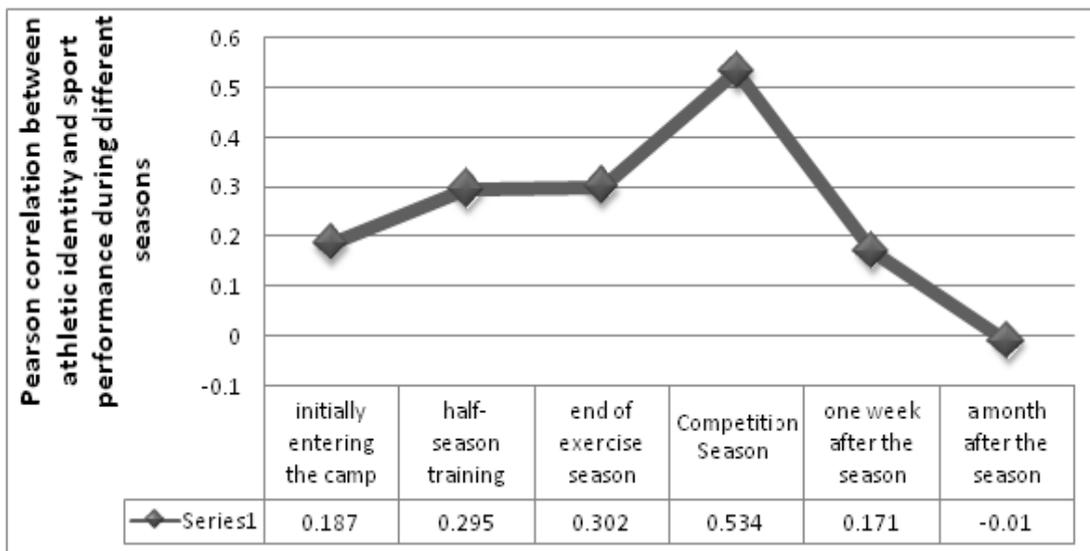
Graph 1: Proceeding changes of correlation between athletic identity and sport performance among national rowers during different seasons of competition

The multiple regression was conducted using the enter method. As shown in Table 3, the adjusted R2 represents that the contribution of the athletic identity in the end of exercise season explains 39.2% of the variances in task orientation. The Beta weights show that, of the one variable in the model, athletic identity in end of exercise season had the strongest influence on task orientation with a value of 0.47 (p=0.001). The Beta weights for athletic identity when initially entering the camp, athletic identity in half-season training and athletic identity in competitions season suggested that they had no influence on task orientation.

Table 3

Linear regression for predicting the performance in the competition season due to athletic identity

Model	P	F	R2adj	Beta
Athletic identity in end of exercise season	0.016*	7.12	0.392	0.478*
Athletic identity when initially entering the camp				

	0.270			-0.209b
Athletic identity in half-season training	0.952			0.012b
Athletic identity in competitions season	0.249			-0.221b

Discussion

One goal of this study was to investigate the relationship between athletic identity and athletic performance in the national squad rowers in different competition seasons. Based on the research findings, athletic identity and athletic performance are directly related, but this relationship was only significant and strong in the competition season (r=0/534, P=0/040). It seems that significant relationship in this season is due to the importance of the time of this season, because the athlete knows that in case of good performance and achieving proper result, their athletic role will become strong and stabilized. The findings of this research are in agreement with researches conducted by Chezlak., (2004), Danish et al., (1998) and Grove et al., (2004). Chezlak., (2004), reported that individuals with high athletic identity set the value of "self" based on athletic performance and tend to boost self-esteem and self-image through their strong athletic identity which later in case of achieving the elite level (professional, national and Olympic levels) it develops further. Finally, most athletes strengthen their identity based on their success. Danish et al., (1998), stated that having a strong athletic identity is essential for success in high athletic levels. Investigations show that high athletic identity leads to more commitment and practice, positive effects on athletic performance, progress of social relationships and focus on athletic related goals.

Another purpose of this study was to investigate the effect of athletic identity in predicting the performance of athletes in national rowing squad in competition season. The results show that the performance of athletes in the competition season could be predicted by athletic identity at the end of the exercises season (0.487). Just as the beta coefficient of regression model shows, athletic identity at the end of exercises season (before the competition) is a better predictor of changes in athletic performance of national squad in the competition season. This finding can be justified with the presupposition that at the end of the exercise season, the individual cares most about their athletic role based on the spent time and the conditions of the camp and at this time, the athletes benefit from both internal factors (personal identity, monopolization) and external factors (social identity) of athletic identity. Maintaining an optimal level of athletic identity in this season could be a predictor factor for athletic performance in the competition season. The general conclusion is that athletic identity and athletic performance of the athletes in the competition season are significantly and positively related. In other words, in this season, because of higher athletic identity, the athletic performance improves. On the other hand, athletic identity at the end of the exercise season can somewhat predict athletic success. It is therefore suggested that sport psychologists pay special attention to this factor in the competition season and further emphasize on the athletic role of the athletes especially the external dimension, i. e. the social identity or being identified by the society as athlete in order to improve athletic performance. This suggestion is consistent with the results of Brewer et al., (1999), indicating that exercise requires commitment and competing with other athletes and usually needs limiting other activities. The predictive power of this factor can be used by coaches to achieve success and it can also be used at the time of selecting athletes. Consequently, high athletic identity can help an athlete achieve optimal athletic performance.

References
1. Baysden M.F., Brewer B.W., Petitpas A.J., Van Raalte J.L. Motivational correlates of athletic identity. Paper presented at the Annual Meeting of the Association for the Advancement of Applied. *Sport Psychology*. 1997, vol.1, pp. 45-52.
2. Brewer B.W., Van Raalte J.L., Linder D.E. Athletic identity: Hercules' muscles or Achilles heel? *International Journal of Sport Psychology*. 1993, vol.24, pp. 237-254.
3. Brewer B.W., Allen E., Cornelius Yannick S., Van Raalte J.L. Self-protective changes in athletic identity following anterior ligament reconstruction. *Psychology of Sport and Exercise*.2010, vol.11, pp. 1-5.
4. Brewer B.W., Shelby C.L., Linder D.E. Petitpas A.J. Distancing oneself from a poor season: Divestment of athletic identity. *Journal of Personal and Interpersonal Loss*. 1999vol.4, pp. 149-162.
5. Craft L.L., Perna F.A., Freund K.M., Culpepper L. Psychosocial correlates of exercise in women with self-reported depressive symptoms. *Journal of Physical Activity and Health*. 2008, vol. 5, pp. 469–80.
6. Danish S. J., Petitpas A.J., Hale B. D. Life development interventions for athletes: Life skills through sport. *The Counseling Psychologist*. 1993, vol.21, pp. 352–385.
7. Engels H.J., Currie J.S., Luek C.C., Wirth J.C. Bench/ step training with and without extremity loading. Effects on muscular fitness, body composition profile, and psychological effect. *J Sports Med Phys Fitness*. 2006, vol. 42(1), pp. 71-80.
8. Grove J.R., Fish M., Eklund R.C. Changes in athletic identity following team selection: self-protection versus self-enhancement. *Journal of Applied Sport Psychology*. 2004, vol.16, pp. 75–81.
9. Lally P. Identity and athletic retirement: A prospective study. *Psychology of Sport and Exercise*. 2007, vol.8(1), pp. 85-99.

10. Nili Z., Hadiyan M., Hemayat talab R. Athletic Identity Differences in Winners of Asia Volleyball Competitions. *International Journal of Sport Studies*. 2011, vol.2(1), pp. 62-68.

11. Shachar B., Brewer B.W., Cornelius A.E., Petitpas A. J. Career decision-making, athletic identity, and adjustment difficulties among retired athletes: a comparison between coaches and   no coaches. *Kinesiologia Slovenica*. 2004, volo.10, pp. 71–85.

12. Weinberg R.S., Gould D. *Foundations of sport and exercise psychology*: Human Kinetics. 2011, 200 p.

Information about the authors:

Zahra Nili Ahmadabady: ORCID:0000-0002-7982-4285; Zahranili@ymail.com; University of Alzahra; Tehran, P.Code: 1993891176, Iran.

Maesoumeh Shojaei: ORCID: 0000-0002-6622-4408; Zahranili@ymail.com; University of Alzahra; Tehran, P.Code: 1993891176, Iran.

Afkham Daneshfar: ORCID: 0000-0002-5879-5681; Zahranili@ymail.com; University of Alzahra; Tehran, P.Code: 1993891176, Iran.