

Original Article

Difference between team and individual sports with respect to psychological skills, overall emotional intelligence and athletic success motivation in Shiraz city athletes.

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Abstract

This research was conducted to compare the psychological skills ,emotional intelligence and athletic success motivation .The research sample consisted of 400 male athletes (247 individual and 153 team) that were selected through randomly multistage sampling method and subjects answered to three scales psychological skills questionnaire OTAWA - 3, Bar-On emotional Intelligence Inventory and perception of sport success questionnaire. Data were analyzed using mean, standard deviation and MANOVA statistical method .The finding (MANOVA) showed that there was significant difference between the two groups (individual and team sports) in terms of psychological skills and motivation of athletic success but there wasn't a significant difference between the two groups (individual and team sports) with respect to overall emotional intelligence.

Key words: psychological skills, emotional intelligence ,motivation of athletic success ,team and individual sports.

Introduction

Today in the world of sport, physical practice is not considered as the only main key to achieve success and top performance. Where as success and enhancement in sport depend on spectrum of physical and psychological factors .The psychological characteristics (success motivation, mental skills and emotional intelligence) assume that have an influence on sport behavior and athletic performance but due to the specific nature of environment stimuli and stressors differs (such as injury experience, reproaching players by coach, criticizing the coach during the race, receiving person or team a fine , bad referee at competition , the audience reaction during the competition)in each type of sport thus can not assume that all sports are similar .

There are also variety of factors in sports field and competition in terms of the type of sports cause athletes experience specific psychological behaviors and this experiences as a result will appear specific psychological phenomena that recognize this the phenomenon to help coaches of difference fields and sport psychologist recognize weaknesses of the players and team to their athletes performance improve, also with attention to nature and type of sports (group and individual) in the group sports like football, basketball, handball in comparison with individual sports due to interpersonal conflict because work with teammates in order to become fix in team arrangement , nature of their sports cause to do many fouls during competition and get card or person and team fine experienced negative emotion and behaviour problematic.

Where as in individual sports, athletes be self-reliant to their abilities. In individual sports, performance criteria is one dimensional while in group sports performance depends on the teammates performance. In some of individual sports, athlete has more time for mental skills practice and conduct in quiet environment while distract and loss of concentrate are part of the team sports. As Taylor (1999) stated that each sport has special physical, technical characteristics which require special skills for athletes. These characteristics that distinguish different sports also impact the type of competitive mental skills that athletes use.

For example in sports that explosiveness will differ greatly from those that require endurance (sprint running versus marathon running),sports that the level of technical performance associated with a sport (fine versus gross motor skills) will influence the type of mental skills that is done (shooting versus power lifting), the sports that less than a minute has significantly different psychological demands than one that three hours (100-meter running versus baseball game, and finally, sports have different requirements in the type (light or intense) and length (minutes versus hours) that is needed (shooting versus discus). Researchers of sport psychologists (Feltz

& Ewing, 1987, Mahony and et al, 1987) have shown there is a difference between psychological profile athletes of team sports individual sports. Cox & Liu (1993) found that athletes of individual sports because can not rely on the teammate have higher level of preparation. Research Gotwals and Wayment, 2002 showed that type and nature sports are difference in terms of some features.

Elferink & Gemser (2004) team sports athletes had better scores in motivation and control anxiety while confidence has been better in individual sports. Jones & Hanton (1995) stated that athletes in different sports during competition give different responses to stimulates and according to mental skills their interpretation is different from the anxiety and believe that skills which in the open skills sports (which are preferably group) are should not necessarily be used in the closed skills sports (which are more individual).

Numerous Studies on athletes who have used mental skills in comparison with other athletes indicated an important mental skill impact in athletic performance improvement. (Williams and Weinberg, 2001, Williams and karane, 2001, Thelwell & Greenless, 2001, Frey and et al; 2003, Morris and Thomas, 2004; Burke & Gaidon, 2004; Martin, and Schwartzman, 2005; Morgan, 2006; Devonport, 2006; Lane & et al, 2009). In addition to variable psychological skills, athletes must have been in their natural tendency to achieve motivation. Motivation is considered as one of the main characteristics of successful performance. The achievement motivation important issue in sport psychology and is related to the rate of effort and perseverance in the sport and athlete success and deal with the difficulties which requires mental ability that motivate the foundation of this psychological ability. Daniel & et al (2002) concluded that athletes of team sports are win orientation than the athletes individual. Research Wartenberg and Maccutcheon (1998) showed that male athletes of hockey sport than athletes recreational sports gained better scores in winning oriented. Emotions and how deal with it are parts of the human personality the affected individual performance and can associate with success and failure in sport setting. Since each athlete who is place under stressful condition and most athletes successful performance or performance led to failure attribute to psychological and emotional factors. Emotions are responsible for success or failure (Hanin, 2000).

Emotional intelligence is a personality variable in psychological literature and a new method in the emotional management of athletes and appears which emotional intelligence will relate to performance and behaviour on the sport situations. Sport psychologists and researchers (lane, 2006; Lane and et al, 2009; Mayer and Felcher, 2009) concluded that if athletes can understand, recognise, regulate and manage their emotions, they can enhance their sport performance. As lane (2006) stated that Emotional intelligence cause the individual get themselves emotional appropriate with situations, if situation needs to arousal, their emotional intelligence getting themselves emotion and vice versa.

Studies Zizzi, Deaner & Hirschhorn 2003; Rogerson & Hrycaiko, 2002; Prlini & Halverson; 2006; Ajayi & Fatokan, 2006; Mayer & Fletcher, 2007; Saklofsak, 2007; Lane & et al, 2009) indicated that emotional intelligence was positively related to their function in the game and the successfully enhancement performance function of people ability in the management and control emotions.

Thus the present study has done in order to achieve a more detail understanding of important aspects of personality team and individual sports athletes to use coaches and who the consultant work with athletes.

Method

This research is an ex post facto design is specially chosen to determine whether there is a difference between mental skills, emotional intelligence and athletic success motivation between team and individual sports. Administration method, in this manner that researcher, in order to collect data with referring to Physical Education Organization shiraz city and after ethical approval with previous coordinate and attend in exercise sessions and explain the research objectives questionnaires distribute among athletes. Meanwhile researcher justify athletes that after complete questionnaires, in the next session questionnaires returned researcher.

Participants

Participants of this study include male athletes who are member of one of the sport clubs and regularly participate in team practice at least three sessions per week and in the last year have been place on the competition conditions. Then, with multi-stage random sampling method were selected 400 athletes among different sports. 247 individual athletes including: swimming (8) combating sports Karate, Taekwondo, Judo, kickboxing (115) Track & Field (20) High Jump (1) Weightlifting (7) Gymnastics (3) Table Tennis (2) Badminton (3) Wrestling (60) Boxing (10) Shooting (10) Body Building (7) and Rock climbing (1), and 153 athletes of team sports including: Football (20), Futsal (41), Water polo (12) Basketball (20), Volleyball (12), Hockey (15) Rugby (8) and Handball (25).

Measures

Bar-On Emotional Intelligence Questionnaire a self-report scale to assess behaviours associated with social and emotional intelligence that consists of 90 questions and each question is rated on a 5-point Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree) and some questions with negative or reverse content from 1 (strongly agree) to 5 (strongly disagree).

This questionnaire have five factor that is composed of 15 component (1) intrapersonal, (emotional self-awareness, assertiveness, self-respect, self-actualization and independence) (2) interpersonal (empathy, responsibility and interpersonal relationships), (3) stress management (stress tolerance and impulse control), (4) adjustment (problem solving, realist and flexibility) (5) general moods (optimism and happiness). Bar-On

Emotional Intelligence questionnaire is the first valid and free-culture questionnaire for emotional intelligence assessment. Questionnaire reliability was calculated by Cronbach alpha coefficients that average about 0.76 and for the subscales from 0.69 (social responsibility) to the coefficient 0.86 for (self-respect). By test-retest method after a month of 0.85 and after four months 0.75 was reported.

Questionnaire validity through construct validity has confirmed. In the present study the Questionnaire reliability has been calculated ($r=0.93$) by Cronbach alpha coefficient.

OTAWA-3 test is the most comprehensive test for assessment of mental preparation that exclusively is used for athletes. The third version of this questionnaire is 48 questions, and rated on a Likert scale rang of 5 degrees, form 5 (always) to 1 (never) and some questions with reverse content from 1 (always) to 5 (never).

Research findings Durand - Bush (2001) high internal consistency with alpha coefficients from 0.68 to 0.88 for this scale have been reported. In the present study the Questionnaire reliability has been calculated ($r=0.88$) by Cronbach alpha coefficient. For validity this scale was used for criterion Validity, that simultaneously mental skills questionnaire and coping skills questionnaire (Smith & et al, 1995) were conduct on the subjects, and was obtained correlation coefficient ($r=0.60$) that indicates criterion Validity the mental skills questionnaire to be desire of aspect psychometrics.

The Perception of success questionnaire (Roberts Treasure, 1998).

Questions based on were feelings of success in sport and questions determine achievement motivation in sport and as a criterion is used that whether the athlete has achieved to success or not? (Roberts & et al, 1998) final version consisted of 12 question and based on the Likert scale of 5 degrees, form 5 (strongly agree) to 1 (strongly disagree).

Roberts & Treasure (1998) high internal consistency by Cronbach alpha coefficient ($r=0.82$) and with test-retest method ($r=0.80$) was reported. Validity of this scale with using criterion validity by questionnaire

Duda and Nicholls (1992) have been reported favourable. In the present study in order to criterion validity the perception of sport success questionnaire simultaneously with achievement motivation questionnaire Gill & Deater (1998) was conduct on the athletes of research sample that is obtained the correlation coefficient ($r=0.40$). Also in the present study the Questionnaire reliability has been calculated ($r=0.79$) by Cronbach alpha coefficient.

Data analysis

The findings of this study in two parts are presented, descriptive findings and the findings related to the research question. Findings related to the mean, standard deviation, between mental skills, motivation of athletic success, emotional intelligence and its components presented in the Table (1).

Table (1) result of mean and standard deviation variable of research in two groups of subjects

variables	individual									group
	total									
	Mean	SD	N	Mean	SD	N	Mean	SD	N	
Mental skills	171	16.9	247	177.91	21.87	153	174	210.9	400	
success Motivation	48.02	6.85	247	49.62	5.84	153	49	6.53	400	
Emotional Intelligence	326	33.58	274	331.69	35.58	153	328.2	34.43	400	
otional intelligence components	Problem solving	23.61	2.97	247	23.78	3.04	153	23.7	2.99	400
	Happiness	21.73	3.46	247	23.61	3.54	153	22.45	3.61	400
	Independence	21.19	3.87	247	21.45	4.09	153	21.3	3.59	400
	Psychological pressure	20.13	3.47	247	20.32	3.89	153	20.2	3.63	400
	Self actualization	21.87	3.68	247	22.16	3.68	153	21.98	3.68	400
	Emotional self awareness	21.27	3.13	247	21.00	3.25	153	21.17	3.17	400
	Realist	19.08	3.36	247	19.69	3.53	153	19.32	3.43	400
	Interpersonal	24.08	3.38	247	24.35	3.17	153	24.19	3.30	400
	Optimism	23.06	3.06	247	23.29	3.12	153	23.15	3.08	400
	Self-respect	23.34	3.44	247	23.35	3.42	153	23.34	3.43	400
	Impulse control	17.68	3.47	247	18.47	4.99	153	17.99	4.66	400
	Flexibility	19.24	3.32	247	19.54	3.12	153	19.35	3.25	400
	Responsible	24.97	3.35	247	25.72	3.33	153	25.26	3.36	400
empathy	23.40	3.44	247	23.73	3.04	153	23.53	3.29	400	
Self perception	19.14	3.57	247	19.28	3.33	153	19.19	3.48	400	

As in the Table (1) presents the result of compare between mean and standard deviation of mental skills two groups of subjects scores showed that there is a significant difference between two groups (team and individual) sports. score mean athletic success motivation team sports Athletes more than subjects of individual Sports but there isn't a significant difference between two groups (team and individual) sports with respect to emotional intelligence there is a significant difference between two groups. Findings related to repeated measures multivariate analysis of variance presents in Table (2).

Table (2). Finding related to Repeated Measures Multivariate Analysis Of Variance

variables	Sum of Squares	Mean Square	F	Sig
Success Motivation	240.84	240.84		5.720
Mental Skills	3677.45	3677.45		8.414
Emotional Intelligence	3044.44	3044.44		2,589

As in the Table (2) presents the result of data analysis used repeated measures multivariate analysis of variance(MANOVA)indicated a significant difference between mental skills team and individual sports athletes that demonstrated statistical significant at $p < 0.05$ level, there is also a significant difference between athletic success motivation team and individual sports that demonstrated statistical significant at $p < 0.01$ level, but there isn't significant difference between emotional intelligence team and individual sports athletes.

Conclusion and Discussion

The purpose of the present study was to Comparison between mental skills, overall emotional intelligence and athletic success motivation among team and individual sports athletes. In associate with the first question of research result indicated that there is difference between team and individual sports in terms of mental skills. In explaining these differences it should be noted that despite the mental skills one of important factors in the success of athletes but the pattern of this impact is not the same in athletes with different levels (beginner, amateur, sub elite ,elite) and type of sport (team and individual)that in accordance with previous researches(Jones and Hanton, 1996; Martensand et al; 1999; Taylor,1999) based on is that, in terms of nature and type of sports it is appear that between the team and individual sports there are difference in use of the mental skills since athletes be in the face with different stresses and conditions, As a result in the use of psychological

skills to moderate stressful conditions are different. By attention to that athletes the present study were different in some important variables such as age, sports experience, knowledge level, training level, sports complex level and team motivational climate, these factors that influence on perception of mental skills thus athletes have shown different pattern of mental skills. The second question of research indicated that there is a difference between team and individual sports in terms of athletic success motivation. In explaining these findings it should be noted that team sports Athletes the present study to expressed that in addition to challenging with the opponent for presence in fixing the arrangement of team must challenge his teammates also for becoming recognise among members of team or play in famous teams require more effort to achieve success in comparison with the individual sports, and the appears to this factor cause team sport athletes be constantly in challenge otherwise, will out of the fixing the arrangement of team. In contrast in individual sports players after becoming select only with the opponent in are challenge. In general, behavioral tendencies relate to achieve increase in challenging situations. This result is in accordance with previous search Golby&sheared(2004). Factors such as expectations of spectators, managers and team coaches or wages players influence on motivation of success and win- orientation in team sport athletes, it is also possible that team sport athletes had more tendency obtain credibility and social status (team sport athletes to expressed that desire play in the teams that are more famous) that can increase success motivation. These findings may be due to different attitudes and feedback of athletes in different sports about the success, despite this result that team sports athletes win- orientation than individual sports athletes but success motivation impact of individual differences. As a result, understanding and awareness of factors that effect on the performance of athletes can help coaches in enhancement their athletes' level (beginner level to amateur level and from amateur to sub elite and elite). With use of intervention techniques coaches and applied sport psychologist encourage personality characteristic (win-orientation) in their athletes.

In associate With the third question the result indicated that there isn't a significant difference between team and individual sports athletes in terms of overall emotional intelligence that isn't in accordance with previous researches (Prini, 2006 and Saklofsak,2007)but there may be several explanation for this finding in compare with pervious researches First, previous researches have been related to compare between elite, sub elite, non elite and non-athletes. Second, subjects of pervious researches consists of were men and women and with attention to men in comparison with women lower in recognise and express their emotions also men's reluctance of expressing their emotional and personality characteristic. On the other hand, subjects of previous researches were selected of homogeneous groups, while subjects of the present study included athletes of different fields and levels. Third, apart from the type of sports (group or individual) participation in sport activities and social interactions as a strong social factor improving social skills and social behaviors, and both sports (team and individual) because of placing in sport environment get positive feedback from the environment, as a result emotional intelligence is assumed as a positive personality trait and higher emotional intelligence will lead to better athletic success motivation. In general, research findings suggest that Coaches in different fields of sport and applied sport psychology must recognise different aspects of personality because it will help them in selecting players for the important responsibilities. Finally it is necessary to state that sample of research only included male athletes thus results should not be generalized to women's.

References

- Ajayi, M. & Fatokun. A.L.A, (2007). "Effect of a six week Emotional Intelligence programmed on the sports performance of Amateur athletes in oyo state of Nigeria <http://www.sirc.ca>.
- Bar-On,R.(1997).Emotional quotient inventory Toronto Canada: Multi-Health system Inc.
- Boyatzis, R.E&Sala,F.,(2004):Assessing emotional intelligence competencies. Massachusetts: The Hay Group.
- Burke, S., & L. Guidone. (2004) . "Mental Imagery as a means of performance enhancement for Athletes". Journal of sports psych, unpublished, <http://dlibrary.acu.edu.au/staff/home/stburke/suop10.Thm>.
- Burton, D. Naylor, S. & Holliday, B. (2001). Goal setting in sport investigating the goal effectiveness paradox. In R.N singer H.A. Hausenblas, & C. M. Janelle (Eds.) Hand book of sport psychology (2nded,p.497-528).NewYork:JohnWiley&Sons .
- Cox,R.H,Liu,Z.,and Qiu,Y.(1996). Psychological skills of elite athletes. International Journal of sport psychology,27,123-132.
- Daniel,R.,Czech Kevin,I.,Burke,A,Burry,Joyner and Chavlesy,Hardy (2002).An exploratory investigation of optimism ,pessimism and sport orientation. International sports Journal .6,2,Academic Research Libaray.
- Davonport,T.J.(2006).Perceptions of the contribution of psychology to success in elite kickboxing. Journal of sports science and medicine. CSSI, 99-107.
- Durand-Bush,N.,salmela,J.H.,&Green-Demers,I.(2001). The Ottawa mental skills Assessment Tool (OMSAT-3).The sport psychologist, 15.1-19.
- Elferink-Gemser,M.T.,Visscher,Lemmink,K.A.P.M.,and mulder,T.H.(2004).Relation between elite ringette players. Sport medicine, Training and Rehabilitation.(1):25-40

- Emmanouil,k.(2001).sport orientation and Goal perspective of wheelchair athletes .human kinetics publishes .INC19.304-315.
- Frey, M., Laguna, P.L, & Ravizza,k.(2003).Collegiate athletes mental skill use and perception of success: An exploration of the practice and competition setting . Journal of applied sport psychology, 15,115-128.
- Fletcher, D., Hanton (2001). The relationship between psychology skills and competitive anxiety response." Psychology of sport and Exercise, 2, 89-101.
- Gill,D.L&Deeter,T.E.(1988).Development of the sport orientation questionnaire ResearchQuarterly for Exercise and sport,59,145-159.
- Golby, Sheared.(2004).mental toughness and hardiness at different level of rugby league .Journal personality and individual differences.37,933-944
- Gotwals.J.,wayment.h.(2002).Evaluation strategies, self esteem and athletic performance .Journal current research in social psychology.Volume.8, number6.
- Hanin, Y.L. (2000). Emotions in sport. Champaign, IL: Human kinetics.
- Jones G., Hanton, S. (1996). Interpretation of competitive anxiety symptoms in elite and non elite sports performance. Personality and Individual difference. 17, 657-663.
- Martin, G.L., vause, T., & Schwartzman, L. (2005). Experimental studies of psychological interventions with athletes in competitions why few? Behavior Modification, 29-616-641.
- lane,A.M.(2006). Emotional intelligence research, positive thinking for sport. Tuning up performance – music and video as ergogenic aids. Peak Performance; issue 228: 5-7 Electric Word Plc.
- lane,A.Thelwell,R.lowther,J.Davenport,T.J.(2009).Emotional intelligence and psychological skills use among athletes .Social behavior and personality: an international Journal . volume37, number 2, p.p195_201 (7).
- Martens,S,R.,Vealey,R.S.,&Burton.(1999).Competitive anxiety in sport champaign,IL.HumanKenetic.
- Mayer.,B.,Fletcher,T.(2007).Emotional Intelligence :A theoretical overview and Implications for research and professional practice in sport psychology. Journal of applied sport psychology volume 19, Number,January2007,pp.1-15.
- Morgan. T.K. (2006). A season – Long mental skills staining program collegiate Volleyball players. A dissertation for the Doctor of philosophy degree. The University of Tennessee.
- Morris, T. & Tomas J. (2004). Application in sports psychology” in T.morris&J,smmer. Sport psychology, theory, application, and issues, John wiley.Australia.
- Perlini, A., Halverson, T. (2006). Emotional Intelligence in the National Hockey League. Canadian Journal of behavioral science 16, 337-347 .
- Roberts, G. G; Tresure, D. C. and Balague, G. (1998). Achievement goals in sport: the development and validation of the perception of success Questionnaire journal of sports science. 16,337-347.
- Rogerson, L.J., & Hrycaiko, D.W. (2002). Enhancing competitive performance of ice hockey goal tenders using centering and self-talk. Journal of Applied sport psychology, 14, 14-26.
- Smith,R.E.,Schutz,R.W.,Smoll,F.L.,&Ptacek,J.T.(1995).Development and validation of multi-dimensional measure of sport-specific psychological skills: The Athletic Coping Skills Inventory-28.Journal of sport and Exercise Psycholohy,17,379-398.
- Saklofske,D.H.,(2007).personality, emotional intelligence and exercise. Journal health psychology.,12(6):937-948.DOI:10.1177/1359105307082458.
- Thelwell, R. C., & Greenless, I. A. (2001). The effect of a mental skills training package on gymnasium performance the sport psychologist,15,127-141.
- Taylor, J. (1995). A conceptual model of the integration of athletic needs and sport demands in the development of competitive mental preparation strategies. *The Sport Psychologist*, 9, 339-357.
- Wartenberg, L.,Mccutcheon,L.(1998).Further reliability and validity of data on the sport orientation questionnaire.JSB.V21,N2P21.(3).
- Weinberg,R.,& Gould, D. (1995).Foundation of sport and exercise psychology Campaigns , IL: human Kinetics Publishers.
- Weinberg, R.S., &Williams, T.W. (2001). Integrating and implementing a psychological skills training program. In J.M Williams (Ed). Applied sport psychology. Personal growth to peak performance (4th ed, pp. 347-377)Mountain view, CA:May field publishing company.
- Williams, J. M. and Krane, V. (2001). Psychological characteristic of peak performance, in J. M. Williams (Es). Applied sport psychology: personal growth to peak performance PP: 137-144.
- Zinsser, N Bunker, L., & Williams, I.M. (2001). Cognitive techniques for building confidence and enhancing performance InJ.M. William s. (ed.) applied sport psychology personal growth to peak performance (4thed.pp284-311.
- Zizzi, S., Deaner, H., Hirschhorn, D. (2002). The Relationship between Emotional Intelligence and Performance among college Baseball players. Journal of Applied sports psychology, 15, 262-269.
- Zuskova, K., Stejskal, T. (2003). “Intelligence in sport”. Journal of applied sport psychology, 20, P:S63.