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A COMPARISON OF SPORT ATTITUDE BETWEEN FEMALE TABLE TENNIS STUDENT ATHLETES TOWARD COMPETITIVE MOTIVE IN INDIVIDUAL AND TEAM SPORTS

Abstract

The findings of several studies that compare the attitudes of female athletes toward competitive motive in individual and team sports indicated that their competitive motives are quite different. Bowman et al (2001); McDonough and Crocker (2005) ; Sit and Linder (2006) found that female student athletes in team sports were more motivated in competition than those in individual sports. The purpose of this study was to compare the attitude of female university table tennis student athletes toward their competitive motives in individual and team sports. These athletes participated in the Seventh University Olympiad Games which was held in summer 2005. A total of 360 female students both from individual and team sports served as two samples in this study. Each sample consisted of 180 players. The Sport Attitude Inventory Questionnaire's (SAI) constructed by Willis (1986) was used as an instrument for this study. This instrument consisted of 3 dimensions: power motive (PM), motive to achieve success (MAS), motive to avoid failure(MAF), all of which together measure the student athletes' motives toward individual and team sports. The validity and reliability of this instrument were reported to be satisfactory. The results of MANOVA showed that there were significant differences between student athletes' attitudes toward individual(Table Tennis, Badminton , Track and Field) and team sports(volleyball, Basketball, futsal) in all three dimensions of competitive motive (PM, MAS, MAF). Then, in order to find out which group is different in dependent variables, one- way analysis variance was conducted. The results of the calculated F for all dependent variables were significant. When the mean scores difference of the sport attitude in individual and team sport athletes were compared, the post hoc test(LSD) showed that: 1) the mean scores differences of the attitude toward power motive between badminton athletes and futsal athletes was significant., 2) A same comparison between the attitudes of badminton ,track and field and futsal athletes in motive to achieve success showed no significant differences., 3) the mean difference between track and field with basketball athletes in motive to achieve success were reported significant., 4) the mean differences between basketball and futsal athletes in motive to achieve success were also significant., 5) the mean difference between table tennis and track and field athletes In motive to avoid failure was significant.,6) the mean difference between the attitude of track and field , volleyball and basketball athletes in motive to avoid failure were significant. However, when the mean scores of table tennis athletes were compared with athletes in other sports, no differences were reported to be significant. Since all student athletes in individual and team sports need to improve their competitive motives to advance their performances, it is, therefore, recommended that the coaches and team psychologists provide rich environment for athletes in different sports to help them identify and improve these competitive motives. This probably may help the athletes to maximize their potential and transcend the negative effects while maximizing the positive benefits of the intended traits such as power motive, motive to achieve success, and motive to avoid failure. Considering these traits may help them to improve their high anxiety, low stimulation and high competitive drive.

Key words: Sport Attitude, Individual games, Team games, Olympiad, Table Tennis

Introduction

Sport psychology is considered as a sub-domain of psychology which direct its activities to study strategies that can be related to the learning of general motor abilities, motor performance, and basic physical fitness movement patterns including kinesthetic perception. Sport psychologists also attempt to study the behavior, characteristics of individuals and the results of their findings provided services to both coaches and athletes to prepare and remain enthusiasm to their team and fans.

Those athletes who participate in the national, international and Olympic Games need to be emotionally comb to overcome their anxiety, worries against their opponent, referees and positive and negative reactions expected by the spectators. It is too easy for one to see different forms of mental stress and anxiety in the face of coaches and athletes for winning or losing the games on his or her TV monitor which are being broadcast by the media through out the world.

The role of participating and winning these games are so important that often leads coaches, athletes and fans not to be able to control their emotions and anxieties. Therefore, understanding competitive behaviors and determining what makes a winner or drives a successful athlete could assist in planning, promoting, and maintaining athlete's participation in sports.

There are different theories with regards to how a person will behave in different situations. The "Risk Taking Theory(RTT) is derivative of the achievement motivation theory and attempts to account for the risk preference of the individuals in situations in which the individual believes his behavior will be evaluated against some criterion of excellence and where the net results is clearly one of success or failure"(Atkinson as cited in Roberts, 1974). The presumption is that any situation that may result in an individual being able to achieve success also poses the possibility of failure. As success is accompanied by pride, so failure accompanied by humiliations. Roberts(1974) states that achievement-oriented behavior is thus "determined by the resultant of a conflict between two opposed tendencies-the tendency to achieve success and the tendency to avoid failure". The RTT focuses on the resolution of the conflict between these two opposed tendencies. There are believed to be common traits among successful athletes, which cause them to react to different situations in either positive or negative ways. Athletes either favor competitive situations and react so that they have superior performance, or they crumble under the pressure and their performance decreases.

Willis (1982) measured competitive motives(CM) in three dimensions. The power motive sub-scale(POW) was designed to measure the effect that one athletic has on another's feelings or behavior . This may be consciously or unconsciously, however, the person with the high need for power concerns themselves with their ability to influence others. Athletic is identified as a form of social power and hypothesized a link between sport participation and need for power. Some sports are seen to have more power-seeking athletes than others . The motive to achieve success(MAS) and motive to avoid failure(MAF) sub-scales were developed as achievement motivation was seen to consist of two parts, achieving success while avoiding failure. MAS was designed to focus a person desire to win and to beat others, the competitors main aim is to win the competition, personal best times and mastery goals take a back seat to his focus.

It has been identified that individuals are inclined to approach success and areas where they are likely to succeed and avoid failure or areas where they are at high risk of being defeated. Individuals high in achievement motivation(MAS&MAF) are characterized by willingness to work hard under longer objective odds, belief that personal effort makes a difference in the outcome, an interest in pursuits yielding achievement satisfaction, optimism, conscientiousness, ambition, patterns of delayed gratification and long term involvement. MAF is conceived as a capacity for reacting with shame and embarrassment when the outcome of the performance is poor. Athletes high in MAF tend to have higher anxiety and withdraw from situations where performance may be evaluated, or where risk of failure is high.

White (2003) found that the reason of participating the youth athletes in competition are sport-related motives. Reiss et al (2001) found that the reason of student's participation in physical activity and sports are competitiveness and winning.

In summary, the specific objective of this study was to study competitive motives between table tennis female university athlete students and student athletes in individual and team sports in seven Universal Olympic which was held in Isfahan, Iran in 2004.

Methodology

Population. All female athletes who participated in Seventh Universal Olympiad Games which was held in Isfahan, Iran at the year of 2005, served as population of this study ($N=965$).

Sample. A total of 360 female athletes from team sports (futsal, volleyball, basketball) and individual sports (table tennis, track and field, badminton), 60 of each, who participated in this games, were randomly selected as two samples for the intended purposes of this study.

Instrument

Sport Attitude Inventory (SAI) constructed by Willis(1982) was used to survey the attitudes toward the competitive motives. SAI was consisted of three sub-scales as follows: power motive, motive to achieve success, motive to avoid failure, and has 40 items which measures possible motives of athletes in above three dimensions. The scale is scored on the basis of 5 point Likert and states from strongly agree through strongly disagree. The reliability and validity of this instrument was reported to be significant.

Results

Descriptive data. Table 1 shows the mean and standard deviation of competitive motive and its three sub-scales in different sports. As the table 1 shows table tennis athletes have high mean in motive to achieve success and low mean in motive to avoid failure.

Table 1. Descriptive statistics (Mean, Standard Deviation).

sport scale	Individual							
	Table Tennis		Badminton		Track & field		Total	
variable	Mean	SD	Mean	SD	Mean	SD	Mean	SD
CM	3.63	0.42	3.56	0.33	3.8	0.4	3.59	0.38
PM	3.65	0.57	3.5	0.57	3.65	0.51	3.6	0.55
MAS	4.04	0.47	3.89	0.41	4.18	0.48	4.03	0.45
MAF	2.98	0.77	3.11	0.7	3.38	0.8	3.15	0.75
Sport	Team							
	Volleyball		Basketball		Futsal		total	
variable	Mean	SD	Mean	SD	Mean	SD	Mean	SD
CM	3.64	0.43	3.52	0.34	3.8	0.34	3.57	0.37
PM	3.69	0.56	3.52	0.53	3.8	0.47	3.67	0.52
MAS	4.1	0.49	3.9	0.46	4.2	0.39	4.06	0.44
MAF	2.86	0.82	2.94	0.64	3.18	0.74	3	0.73

Testing hypotheses

In order to test the hypotheses that there may be a difference between the attitudes of athletes in different sports toward competitive motives, the multivariate analysis of variance (MANOVA) was used. Table 2 shows the results of multivariate analysis of variance for testing comparison of competitive motives for individual and team sports. The results of MANOVA showed that there were significant differences between student athletes' attitude toward individual and team sports in all three dimensions of competitive motive (power motive, motive to achieve success and motive to avoid failure)

Table 2. Mutivariate Analysis of Variance (MANOVA).

Variable	Source of variable	Value	F	df	df error	P
sports	Pillais Trace	0.121	2.984	15.000	1062.000	0.001
	Wilk's Lambada	0.882	3.013	15.000	972.118	0.001
	Hotelling's Trace	0.130	3.033	15.000	1052.000	0.001
	Roy's Largest Root	0.087	6.135	5.000	354.000	0.001

Therefore to find out which group is different in independent variable, a one-way analysis variance was conducted. Table 3 shows the results of ANOVA between means of independent variables with dependent variables. The results of the calculated F for all dependent variables are significant. When the mean differences of sport attitude between individual sport athletes (Table Tennis, badminton, Track and field) and team sport athletes (volleyball, Basketball, Futsal) were compared, the post hoc-test showed that the differences were significant (table 4, 5). In PM there is significant difference between badminton athletes with futsal players. In MAS there were significant differences among badminton athletes with track and field and futsal athletes; track and field athletes with basketball athletes; and basketball athletes with futsal athletes. In MAF there were significant differences between table tennis athletes and track and field players; track and field athletes with volleyball and basketball athletes. However, when the mean scores of sport attitude of table tennis athletes were compared with athletes in other sports, no differences were reported to be significant.

Table 3. The results of ANOVA of independent variables (individual and team sports) with dependent variables (PM, SM, FM).

Scale Source	variable	SS	df	MS	F	sig
Sports	PM	3.793	5	0.759	2.573	0.026
	MAS	5.526	5	1.105	5.267	0.001
	MAF	10.519	5	2.104	3.729	0.003

Table 4. Comparison of means between different sports in PM by post-hoc test.

Variable	Sports	mean	Table tennis	Badminton	Track & field	Volleyball	Basketball	Futsal
			3.652	3.502	3.656	3.698	3.523	3.804
Power motive	Table tennis	3.652	-	-0.004	-0.042	-0.045	-0.129	-0.151
	Badminton	3.502	-	-	-0.154	-0.195	0.020	0.301*
	Track and field	3.656	-	-	-	-0.041	0.133	-0.147
	Volleyball	3.698	-	-	-	-	0.175	-0.105
	Basketball	3.523	-	-	-	-	-	-0.280
	futsal	3.804	-	-	-	-	-	-

* significant at $p < .05$

Table 5. Comparison of means between different sports in MAS by post-hoc test.

Variable	Sports	mean	Table tennis	Badminton	Track & field	Volleyball	Basketball	Futsal
			4.049	3.890	4.188	4.104	3.909	4.208
motive to achieve success	Table tennis	4.049	-	0.158	-0.1392	-0.0559	0.1392	-0.1598
	Badminton	3.890	-	-	-0.2980**	-0.2147	-0.0196	-0.318**
	Track and field	4.188	-	-	-	-0.083	0.278*	-0.020
	Volleyball	4.104	-	-	-	-	0.1951	-0.103
	Basketball	3.909	-	-	-	-	-	-0.299**
	futsal	4.208	-	-	-	-	-	-

* significant at $p < .05$ ** significant at $p < .001$

Table 6. Comparison of means between different sports in MAF by post-hoc test.

Variable	Sports	mean	Table tennis	Badminton	Track & field	Volleyball	Basketball	Futsal
			2.981	3.112	3.381	2.868	2.947	3.184
motive to avoid failure	Table tennis	2.981	-	0.130	-0.40*	0.113	0.034	-0.20
	Badminton	3.112	-	-	-0.269	-0.243	0.165	-0.07
	Track and field	3.381	-	-	-	0.513**	0.434*	0.197
	Volleyball	2.868	-	-	-	-	-0.078	-0.31
	Basketball	2.947	-	-	-	-	-	-0.23
	futsal	3.184	-	-	-	-	-	-

* significant at $p < .05$ ** significant at $p < .001$

Discussion and conclusion

Based on the findings of this study, it was found that there were significant differences in competitive motive of table tennis student athletes and other student athletes in intended sports. In other words, sports activities were influential factors to improve competitive motives.

These results are compatible with the findings of White(2003), Reiss et al(2001), Jones et al(2001), Gill and Deeter (1988). The results of these researchers suggest that an athletes attitude and beliefs consider as two important factor when they trying to achieve success.

The results of this study showed that the mean of sub-scales of competitive motives of the table tennis students were not in optimal level. In motive to avoid failure this mean is lower than the two other dimensions (power motive, motive to achieve success). The risk of doing poorly in a situation has tremendous effects on many athletes participation in sporting events. Individuals may be so high in MAF that they ultimately end up stopping their sports and leading a sedentary lifestyle. Identifying a strong MAF in athletes at any level can alert coaches and trainers to the areas that need to be focused on. Perhaps relaxation techniques that the athlete could use, or reducing the emphasis on winning to personal goals and achievements could help maintain high levels of participation.

Since all student athletes in individual and team sports must improve their competitive motives to advance their performances, it is, therefore, recommended that the coaches and team psychologists provide rich environment for athletes in different sports to help them identify and improve these competitive motives. This probably may help the athletes to maximize their potential and transcend the negative effects while maximizing the positive benefits of the intended traits such as power motive, motive to achieve success, and motive to avoid failure. Considering these traits may help them to improve their high anxiety, low stimulation and high competitive drive.

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