

**Achievement Goals, Fears of Failure and Perceived Coaching Climate in Malaysian Sepak
Takraw Players**

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Abstract

In tune with the multiple achievement goal framework assumptions (Elliot, 1999; Elliot & McGregor, 2001), the present study examined the relationships among achievement goals, fear of failure and perceived coaching climate in male sepak takraw players. Participants (N = 96) completed questionnaires assessing their achievement goals (AGQ-S; Conroy et al., 2003), fear of failure (PFAI; Conroy, 2001) and a modified version of the AGQ-S for assessing perceived coaching climate. Results revealed that the different achievement goal oriented coaching climates found to be significantly correlated to corresponding achievement goals adopted by athletes with the exception of Performance-avoidance goals. None of the achievement goals were significantly correlated to fear of failure. Age was positively correlated to Performance-avoidance goals while Performance-approach goals were negatively correlated to years of competitive sport participation.

Over the last three decades, the motivation research in physical activity contexts is predominated by a social-cognitive approach. Upholding this approach, achievement goal theory has emerged as the most popular in sport and physical activity contexts (Roberts, Treasure & Conroy, 2007). As achievement goal theories postulate, displaying competence is the major focus in achievement settings (Ames, 1984; Dweck, 1986; Maehr, 1984; Nicholls, 1989). People use different goal perspectives to judge their competence and define successful accomplishments.

Two different goal perspectives such as task and ego goals which differ in definition were proposed as an early dichotomous model of achievement goals. Though the terminology differs, different researchers conceptualized two major achievement goals (e.g., *learning* and *performance*, Dweck, 1986; *mastery* and *performance*, Elliot, 1999; *task* and *ego*, Nicholls, 1989) conceptually equivalent to task and ego goals which dominated the early achievement goal research. Task oriented individuals apply self-referenced criteria to evaluate their competence. They participate in achievement activity to achieve mastery and personal improvement. Conversely, ego oriented individuals apply normative criteria to evaluate their competence and thereby, engage in achievement activity to outperform others (Nicholls, 1989). Being added the valence dimension (approach-avoidance) to the two achievement goals (task/mastery and ego/performance), the achievement goal theory was expanded (Elliot, 1999; Elliot & McGregor, 2001) to encompass four achievement goals namely, Mastery-approach (MAp), Mastery-avoidance (MAv), Performance-approach (PAp) and Performance-avoidance (PAv).

Performing a task as well as possible or overcoming a previous performance is the focus of MAp goals. Mastery-approach goals represent striving to approach intrapersonal competence (self-referenced). These goals are considered to be optimal while performance and striving for

personal records in sport setting reflect M_Ap goals. People with P_Ap goals try to outperform others. These goals represent striving to approach normative competence (others-referenced). The P_Ap goals are prevalent in sport settings as the social comparison is inherent in sport. Besides, P_Ap goals are considered to be suboptimal due to the use of a normative criterion of competence. Athletes with approach goals (M_Ap & P_Ap) strive to display competence whereas athletes with avoidance goals (M_Av & P_Av) strive to avoid incompetence. Thus, people with P_Av goals focus on not being outperformed by others. These goals represent striving to avoid normative incompetence. The P_Av goals are expected to be the most dysfunctional because they combine the less desirable definition of competence (comparison with others performance) with less desirable valence, that is avoidance. The M_Av goals focus on not making mistakes or not doing worse than a previous performance. The M_Av goals represent striving to avoid intrapersonal incompetence. These goals may be particularly relevant for perfectionists and for athletes striving to maintain their skill level as they approach the end of their careers. (Conroy, Elliot & Hofer, 2003; Elliot & McGregor, 2001; Roberts et al., 2007).

Elliot (1999) proposed a number of possible antecedents of approach-avoidance goal adaptation in achievement contexts. Perceptions of competence, motive dispositions (e.g. fear of failure) and achievement environment are some of the antecedents of goal adoption (Elliot, 1999). The peculiarities of the achievement environment influence athletes to adopt certain achievement goals. One aspect of the achievement environment is motivational climate. Motivational climate refers to the situational goals structure created by significant others in achievement contexts (Ames, 1992). Though, coaches, parents, and peers may all contribute to motivational climate in organized sports, perceived motivational climate is mainly based upon the climate created by the coach (Newton, Duda, & Yin, 2000; Seifriz, Duda, & Chi, 1992;

Walling, Duda, & Chi, 1993). Very few studies (Conroy, Kaye & Coatsworth, 2006; Morris & Kavussanu, 2008) have investigated motivational climate as antecedents of approach-avoidance goals in relation to a achievement goal framework which incorporates all the four achievement goals.

One of the widely reported antecedents of goal adoption is fear of failure (Conroy, 2004; Elliot, 1999; Nein & Duda, 2008). According to a cognitive-motivational-relational approach (Conroy 2001, 2003, 2004, Conroy & Elliot, 2004), fear of failure is a dispositional tendency to experience apprehension and anxiety in evaluative situations because individuals have learned that failure is associated with aversive consequences. Fear of failure occurs when beliefs or cognitive schemas about these aversive consequences of failing are stimulated by situations in which failure is possible.

The present study investigated achievement goals and two important antecedents: coaching climate and fear of failure. Coaching climate is an important situational variable while fear of failure is a person variable. Besides these two important variables, two other variables explored in relation with achievement goals were participants' chronological age and years of competitive sport participation. This study was designed to add new knowledge to the literature by investigating the relationships among achievement goals, perceived coaching climate, fear of failure, age and years of competitive sport participation based on the four achievement goals approach (Elliot, 1999; Elliot & McGregor, 2001). This is in contrast with the classical dichotomous approach (task versus ego). Additionally, the study was conducted on a sample of sepak takraw players. Motivation research on samples of sepak takraw players is relatively scarce. Sepak takraw or kick volleyball is a sport from the Southeast Asia, with similarities like volleyball. While volleyball is played with hands, Sepak takraw is played with feet, knee, head

and chest (Olympic council of Asia, Retrieved January, 16, 2010). Sepak takraw is popular in Southeast Asian countries like Malaysia, Thailand, and Singapore and its popularity is increasing worldwide.

Method

Participants and Procedures

A sample of 96 Male sepak takraw players from various parts of Malaysia was recruited. Their age ranged from 18 to 39 years ($M_{\text{age}} = 26.00$, $SD = 4.50$). All participants were involved in competitive sport for several years ($M = 8.82$ years, $SD = 3.63$).

Measures

Approach-avoidance goals. The 2 X 2 Achievement Goals Questionnaire for Sport (AGQ-S; Conroy et al., 2003) was used to measure participants' achievement goals for their sport. This 12-item measure provided scores for MAp, MAv, PAp, and PAv achievement goals. Sample items included “*It is important for me to master all aspects of my performance*” (MAp), “*It is important for me to perform better than others*” (PAp), “*I just want to avoid performing worse than others*” (PAv), and “*I am often concerned that I may not perform as well as I can perform*” (MAv). Participants were asked to focus on their thoughts and feelings about their sport when responding to the questions. Responses were made on a scale ranging from *not at all true of me* (1) to *very true of me* (7). Conroy et al. (2003) adapted this measure from the short form of the original Achievement Goals Questionnaire (Elliot & McGregor, 2001) to be directly applicable

to sport. AGQ-S scores have demonstrated evidence of longitudinal factorial invariance, differential stability, external validity, and latent mean stability (Elliot & McGregor, 2001).

Fear of failure. The short form of Performance Failure Appraisal Inventory (PFAI; Conroy, 2001; Conroy, Willow & Metzler, 2002) was used to assess fear of failure. This 5-item inventory yields scores for fear of failure. Participants were asked to think of how often they believed each statement was true in their significant motor performances. Responses were made on a scale ranging from *do not believe at all* (1) to *believe 100% of the time* (5). Examples of items are “*When I am failing, I am afraid that I might not have enough talent,*” and “*When I am failing, I worry about what others think about me.*” The PFAI scores have demonstrated sound psychometric properties, including factorial invariance across groups and over time, internal consistency, external validity, and predictive validity. The PFAI scores have also exhibited evidence of differential stability (i.e., test-retest reliability > 0.80), and latent mean stability (Conroy et al., 2002).

Perceived coaching climate. Perceptions of the goals that their coaches’ used to evaluate their competence (i.e., coaching climate) were assessed by modifying stems for items on the AGQ-S. We adapted this procedure directly from Conroy et al., (2006). The Perceptions of Coaches’ Achievement Goals Questionnaire for Sport (PCAGQ-S) provided scores for perceived coaching climate based on the four achievement goals. Examples of items for these dimensions are: M_{Ap} oriented coaching climate, CC-M_{Ap} (“*My coaches believe that it is important for me to master all aspects of my performance*”); M_{Av} oriented coaching climate, CC-M_{Av} (“*My coaches worry that I may not perform as well as I possibly can*”); P_{Ap} oriented coaching climate, CC-P_{Ap} (“*My coaches believe that it is important for me to perform as well as I possibly can*”); and P_{Av} oriented coaching climate, CC-P_{Av} (“*My coaches just want me to avoid*

performing worse than others”). Participants were asked to rate each item on a scale ranging from *not at all true* (1) to *very true* (7).

Statistical analysis

Pearson Product moment correlation was employed to estimate the correlation coefficients among the variables. The possibility of performing a multiple regression to predict the achievement goals from its antecedents, participants’ age and years of participation in competitive sport were ruled out due to an arguable small sample size. Authors differ in their opinion on the required sample size to run a multiple regression analysis. For example, Stevens (1996) recommends that about 15 subjects per predictor are needed for a reliable equation. However, Tabachnick and Fidel (2007) suggest a formula for calculating sample size: $N > 50 + 8m$ (where m = number of independent variables). Therefore, considering the present study as a forerunner of more in-depth motivation research in sepak takraw, we avoided a possible sampling error by running a multiple regression analysis for a small sample.

Results

The distributions of all variables were examined through histograms, values of skewness and kurtosis for assumptions of normality. These analyses showed no major deviation from normality. No missing values were found.

<<<'Table 1 near here'>>>

Descriptive statistics of all variables are presented in Table 1. Sepak takraw players reported high approach goal orientations; M_{Ap} ($M = 6.13$, $SD = .63$) and P_{Ap} ($M = 5.94$, $SD = .64$) compared to avoidance goal orientations, M_{Av} ($M = 4.47$, $SD = .76$) and P_{Av} ($M = 5.16$, $SD = .97$). Scores on perceived coaching climates also followed a similar pattern. Participants reported high approach goal oriented climates, CC-M_{Ap} ($M = 5.66$, $SD = .87$) and CC-P_{Ap} ($M = 5.73$, $SD = .86$) compared to avoidance goal oriented climates, CC-M_{Av} ($M = 4.60$, $SD = 1.08$) and CC-P_{Av} ($M = 4.86$, $SD = 1.05$). The mean score of fear of failure was 2.92, ($SD = .89$). Because it was out of the scope of the study, other correlations including inter-correlations among achievement goals or perceived coaching climates were not analyzed. The correlation coefficients among all variables are presented in Table 2.

<<<'Table 2 near here'>>>

Some of the correlations among achievement goals and coaching climate were significant. The correlation between Mastery-approach and CC-M_{Ap} was found to be significant, $r(94) = .31$, $n = 96$, $p = .01$. Similarly, the correlation between Mastery-avoidance and CC-M_{Av} was also significant, $r(94) = .25$, $p = .05$. Among performance goals, only the correlation [$r(94) = .42$, $p = .01$] between Performance-approach and CC-P_{Ap} was statistically significant while the correlation between P_{Av} and CC-P_{Av} was not significant. Additionally, there was a significant correlations between achievement goals and coaching climates with different definition and valence of competence. Thus, there were significant positive correlations

between MAp and CC-PAp [$r(94) = .34, p = .01$], PAp and CC-MAp [$r(94) = .41, p = .01$]; and PAp and CC-PAv [$r(94) = .29, p = .01$]. None of the achievement goals were found to correlate significantly with fear of failure. Among the four achievement goals, Performance-avoidance was correlated with age of the participants, $r(94) = .34, p = .01$. Performance-approach goals were estimated to have a significant negative correlation [$r(94) = -.22, p = .05$] with years of participation in competitive sport. Other correlations among these variables were not analysed because it was out of the scope of the study.

Discussion

The emergence of 2 X 2 model of achievement goals has received acceptance in education settings (e.g. Elliot & McGregor, 2001), physical education settings (e.g., Wang, Biddle & Elliot, 2007) and sport settings (e.g., Conroy et al., 2006). Though, the determinants of approach-avoidance goals have been studied extensively in relation to the 2 X 2 model, the role of socio-environmental factors, specifically coaching climate, has rarely been explored. Thus, the objective of the present study was to investigate the relationships among achievement goals, perceived coaching climate, fear of failure, age and years of competitive sport participation holding a 2 X 2 approach (Elliot, 1999; Elliot & McGregor, 2001) on a sample of Malaysian male sepak takraw players.

Achievement goals and perceived coaching climate

Drawing from the 2 x 2 framework of achievement goals, it was hypothesized that perceived coaching climates dominated by MAp, MAV, PAp and PAv goals will be significantly correlated to MAp, MAV, PAp and PAv goals respectively. Studies in physical education context

(Cury, Da Fonseca, Rufo, & Sarrazin, 2002; Ntoumanis & Biddle, 1998; Ommundsen, Roberts, & Kavussanu, 1998) have reported that mastery goals were positively predicted by perceptions of a mastery climate or negatively by performance climate while performance goals were positively predicted by performance climate.

The present study results showed that three achievement goals were correlated with coaching climates predominated with corresponding achievement goals. In other words, Mastery-approach goals were correlated with CC-MAp and similar positive correlation were also evident between Mastery-avoidance goals and CC-MAv, Performance-approach goals and CC-PAp. These results were in accordance with the hypotheses. However, there was no significant correlation between Performance-avoidance goals and CC-PAv. This finding does not support Conroy et al., (2006) who have reported that performance-avoidance oriented coaching climate had powerful impact on performance-avoidance goals in athletes, in contrast to the effects of any other type of coaching climate on any of the achievement goals. The reason for such a result may be due to the nature of the game. Sepak takraw is a game which requires great acrobatic skills and flexibility that warrant high intrinsic motivation to have a prolonged participation in the game.

The mean score of MAp goals were higher than that of PAv goals. High levels of MAp goals is an indication of high intrinsic motivation as the high correlation between these variables suggests (e.g., Elliot & Church, 1997; Smith et al., 2006; Nein & Duda, 2008; Conroy et al., 2006; Elliot & McGregor, 2001). Naturally, these players might be motivated to demonstrate their competence and hone their skills (MAp) than to avoid being outperformed by others (PAp). Therefore, they may resist to PAp goals created by their coaches.

Drawing from the results of the present study, it could be suggested that coaches can influence the goal adoption of sepak takraw players. If they want to encourage optimal achievement goals in players, they have to create a motivational climate that matches with their intended achievement goals. For instance, Mastery-approach goals are considered to be the most functional and optimal achievement goals (Conroy et al., 2003; Elliot & McGregor, 2001; Roberts et al., 2007) because these goals combine an intrapersonal definition of competence and a positive (approach) valence. Previous research has also revealed a positive correlation between intrinsic motivation and MAp goals or task orientation (e.g., Elliot & Church, 1997; Smith et al., 2006; Nein & Duda, 2008; Conroy et al., 2006; Elliot & McGregor, 2001). Therefore, the coaches who aim to foster Map goals in their players may create a MAp oriented coaching climate wherein breaking one's own record or performing a task 'as well as possible' is the focus. On the other hand, Performance-approach was significantly correlated with other approach-based coaching climate, CC-MAp. Similarly, Mastery-approach goals were positively correlated with CC-PAp. These correlations suggest a possible cross over among coaching climates and achievement goals. Further studies are warranted to explore such possibilities.

Achievement goals and fear of failure

Studies (Conroy et al., 2003; Elliot, 1999; Elliot & Church, 1997, Nein & Duda, 2008) employing regression analysis have found that fear of failure positively predicted the adoption of performance-avoidance goal. Similarly, research in academic domains (Elliot & Church, 1997; Elliot & McGregor, 2001) and sport (Conroy et al., 2003) has reported that fear of failure positively predicted PAv, MAV and PAp goals and is unrelated to MAp goals. These findings imply that fear of failure is positively related to all other achievement goals but MAp goals.

However, the present study did not provide any evidence for the relationship between fear of failure and achievement goals in sepak takraw players except for the relationship between MAP goals and fear of failure. The MAP goals and fear of failure were found to be unrelated. Further investigations are required to verify these results.

Achievement goals, age and years of participation in competitive sport

It is interesting to note that sepak takraw players' scores on PAV goals were increased with the increment in their age as the positive correlation between PAV goals and age indicates. Another interesting finding was the negative correlation between Performance-approach goals and years of participation in competitive sport. As Sepak takraw players' experience in competition increases they lose their focus on outperforming other players. However, other achievement goals were invariant as the players' experience in competitive sport increases. This may be due to the fact that any decrease or increase in one achievement goals does not warrant corresponding change in any other achievement goal because achievements goals are considered to be orthogonal in relationship (Nicholls, 1989).

Despite the results inferred from the present research, one important aspect to be considered is the nature of the research. The results provide limited information on the nature of relationships among achievement goals and other variables because of the correlational nature of the study. Further research on these variables involving sepak takraw players may be conducted employing more sophisticated statistical methods like regression analysis or structural equation modelling in line with the assumptions of achievement goal theory (Elliot, 1999; Elliot & McGregor, 2001). From an application perspective, the findings help develop desirable achievement goals adoption of sepak takraw players by creating varying achievement goal

oriented coaching climates. Additionally, two other insights from this research could be useful for sepak takraw coaches. Firstly, sepak takraw players tend to lose their focus to outperform their opponents as they gain more experience by longer participation. Secondly, the older the player the more he wants to avoid being outperformed by others.

Conclusion

In conclusion, the present research investigated the correlations among perceived coaching climates, fear of failure and achievement goals on a rarely investigated sport sample- sepak takraw players. Generally, the relations between achievement goals and perceived coaching climates were in accordance with the existing literature. Further research is needed to verify the correlation between fear of failure and achievement goals. Interestingly, an increase in age and years of participation in sepak takraw were differently related to achievement goals. The former was found to be related to Performance-avoidance goals while the latter was negatively correlated to Performance-approach goals.

Table 1

Descriptive statistics for Achievement Goals, Perceived Coaching Climate and Fear of Failure scores

Scale	<i>M</i>	<i>SD</i>
Mastery-approach	6.13	.63
Mastery-avoidance	4.47	.76
Performance-approach	5.94	.64
Performance-avoidance	5.16	.97
CC-MAP	5.66	.87
CC-MAV	4.60	1.08
CC-PAP	5.73	.86
CC-PAV	4.86	1.05
Fear of failure	2.92	.89

Note: CC-MAP: Coaching climate of Mastery-approach, CC-MAV: Coaching climate of Mastery-avoidance, CC- PAP: Coaching climate of Performance-approach, CC-PAV: Coaching climate of Performance-avoidance.

Table 2

Correlations among achievement goals, perceived coaching climate, fear of failure, age and years of participation in competitive sport

	MAp	MAv	PAP	PAv
CC-MAp	.31**	-.02	.41**	-.06
CC-MAv	-.06	.25*	.20	-.01
CC-PAP	.34**	.03	.42**	.06
CC-PAv	.13	.20	.29**	.14
Fear of failure	-.07	.06	.08	.08
Age	-.19	-.09	-.04	.34**
YPCS	-.02	-.15	-.22*	.14

* $p < 0.05$ (2-tailed) ** $p < 0.01$ (2-tailed)

Note: MAp: Mastery-approach, MAv: Mastery-avoidance, PAP: Performance-approach, PAv: Performance-avoidance, YPCS: Years of participation in competitive sport

CC-MAp: Coaching climate of Mastery-approach, CC-MAv: Coaching climate of Mastery-avoidance, CC- PAP: Coaching climate of Performance-approach, CC-PAv: Coaching climate of Performance-avoidance.

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