



COMPARATION OF ACHIEVEMENT MOTIVATION AMONG FOOTBALL PLAYING POSITIONS

DR SANJAY VIJ

ASSOCIATE PROFESSOR OF PHYSICAL EDUCATION
GURU NANAK KHALSA COLLEGE YAMUNANAGAR

DR BODH RAJ

ASSOCIATE PROFESSOR OF PHYSICAL EDUCATION
GURU NANAK KHALSA COLLEGE YAMUNANAGAR

ABSTRACT

The purpose of this research was to investigate whether or not male and female semi-professional football players vary in terms of their levels of competitiveness and achievement motivation, as assessed by the Objective Achievement Motivation Test (OLMT) developed and distributed by Schuhfried. The OLMT was able to objectively evaluate three different aspects of motivation for achievement: motivation via personal objectives, ambition level, and motivation through competitiveness. In addition, the self-reported Competitiveness-10 Questionnaire was used in order to evaluate levels of competition. At the end, the performance of the competitors was evaluated by three qualified observers during each of the 10 matches. There were a total of 38 football players who participated in this study, 27 of whom were male and 11 of whom were female. The Levene test revealed no statistically significant differences between the male and female participants in terms of the scores they attained on the various measures that were utilised in this investigation. As a function of gender, there were found to be significant differences in both the motivation via competition ($p = 0.021$) and in self-reported competitiveness ($p = 0.020$), with men displaying greater values in both situations. There were no significant gender differences detected in either the amount of ambition ($p = 0.283$) or the level of motivation via personal objectives ($p = 0.897$). Moreover, age and player performance did not have any effect on how gender disparities manifested themselves across any measurements. There was found to be no significant link between the measures of motivation used and performance. In conclusion, it should be noted that the only variable on which gender differences emerged was the level of competitiveness, such that males scored higher than females on both objective and self-reported measures of competitiveness. This was the case regardless of whether the competitiveness was self-reported or objectively measured.

Keywords: *achievement motivation, competitiveness, computerized assessment, football*

INTRODUCTION

There is a widespread agreement among experts in the scientific community regarding the significance of psychological factors, in addition to those that are technical, tactical, and physiological, on athletic performance. These factors are regarded as constituting an extremely vital framework for the growth of the player. Research has shown that motivation, out of all the psychological factors that could play a role in performance, can counteract the decrease in performance that is caused by fatigue. Additionally, research has shown that motivation has an important influence, along with psychophysiological, cognitive, and emotional components, on an athlete's maximum possible effort. To be more specific, accomplishment motivation is predicated on the display of high competence and/or the avoidance of the display of poor ability, as well as the establishment of a positive association between achievement motivation and athletic performance.

In order to achieve success in a task, it is vital to have motivation that is focused on the work at hand, regardless of whether or not a reward is involved. In this situation, success is dependent on the amount of effort that is put forth and is tied to the enhancement of one's task-relevant abilities, with the understanding that making errors is an integral part of the process of becoming more skilled. A task-oriented and motivated environment is beneficial to the overall performance of football teams, as shown by a number of studies.

Those who are motivated by their egos, on the other hand, strive to attain success by focusing their attention on the sense of superiority that comes from surpassing their peers. In point of fact, this motivational driver can produce greater satisfaction as the athlete assumes a perspective focused on competition and overcoming rivals, rather than focusing on overcoming themselves. This is because the athlete is able to shift their attention away from themselves and towards the competition. When considered as a whole, high-level teams seem to be distinguished by a larger ego orientation, which, in turn, results in an increased possibility of generating performance-oriented group climates. Lower-level teams, on the other hand, would focus more on the tasks at hand, which would promote improvement-oriented team cultures that were more cooperative than competitive in their methods. In this way, there is evidence on the link between an athlete's ego-task orientation and their view of their own level of accomplishment as an athlete. A high perception of success leads to an increase in the degree of effort and tenacity in the work, which in turn leads to a larger appreciation of achievement and a stronger capacity for motivation.

It is anticipated, for the sake of our investigation, that the study of accomplishment motivation will be approached from a Cattell's personality-centered point of view. While doing research on motivation, it is often necessary to make a nuanced difference between motive and motivation. According to Schneider and Schmalt, the accomplishment motive is always a disposition, but the achievement motivation is always a condition. This distinction is important since the majority of

the research that has been done up to this point has not been able to show a distinct difference between the two ideas. In light of this, it may be deduced that a punctual assessment of accomplishment motivation is utilised, but an evaluation of the dispositional tendency, which is connected to personality, of achievement motivation is ignored. It is exactly this dispositional and objective assessment that makes it possible for the OLMT to be included into Cattell's long-standing practise of conducting personality evaluations. According to this point of view, personality traits are evaluated not based on subjective tests but rather on behavioural indications.

In terms of competitiveness, the emphasis of this study has been on adopting an approach based on traits, which is defined within the Murray, Atkinson, and McClelland accomplishment theory. According to these scholars, people's actions in accomplishment situations like athletics are influenced both by people's enduring personality traits and by the circumstances in which they find themselves. Motives or dispositional variables are the driving force behind both the decision to achieve success and the decision to avoid failure. These writers believe that these characteristics do not change over time, that they are universal (due to the fact that in accomplishment contexts, behaviours follow the need for success), and that they are independent of one another due to the fact that an individual might have a high desire for achievement. Stay away from failure, but do so not to become successful.

As this pertains to the current study, there is evidence to imply that gender disparities do exist between male and female athletes in terms of the elements that influence their level of motivation, particularly accomplishment motivation. For instance, research has shown that men have higher levels of ego-oriented motivation and higher levels of motivation through competition than women do in the context of sports. On the other hand, studies have shown that women have higher levels of aspiration and are better at setting goals than men are. There is no difference between men and women in their level of drive to avoid failing.

In the field of psychological research, specifically in the area of achievement motivation, the vast majority of studies have used subjective self-report instruments. Despite the fact that this type of measurement has been criticised for its limitations, specifically the fact that it is simple to fake and runs the risk of producing unreliable results, this is how the vast majority of studies have been conducted. In spite of these shortcomings, self-report measures do offer a few benefits, such as their cheap economic cost and great simplicity of use. Nevertheless, these benefits are outweighed by the downsides. Despite the notion that objective measurements may be more trustworthy than self-reports in some particular conditions, only a small number of research have employed objective instruments to evaluate athletes' motivation. This is notable given that just a few studies have done so. Significantly, some writers suggest the use of both self-reported and

objective measures together in order to achieve a more comprehensive evaluation of athletes' motivation. This is done in order to get a better picture of how motivated players are.

The majority of the empirical research on accomplishment motivation in football has relied on self-report measures and focuses on samples made up of male football players who participate in young or training categories, as well as on amateur adults. These categories include amateur football players. Relatively few studies have been carried out with a female population, and even fewer of those have made use of computerised psychological tests as a means of data collection. This is because new technologies have only very lately come into existence. This gap in knowledge about studies on accomplishment motivation in the context of semi-professional football players was the focus of the current study.

To summarise, it would seem to be both important and essential for researchers to conduct studies that investigate the accomplishment motivation of football players using objective measures and studying variances as a function of gender. As a result, the primary purpose of this study is to investigate gender differences among male and female semi-professional soccer players with regard to objectively measured achievement motivation and self-reported competitiveness, with the intention of contrasting the relationship between self-reported and objectively measured competitiveness.

OBJECTIVES

1. To study comparison of achievement motivation among football playing positions
2. To study achievement motivation

MATERIALS AND METHODS

Design

In accordance with the recommendations provided by STROBE, a descriptive cross-sectional design was carried out. The protocol created for data collection was examined by the institution's ethics committee, and they gave their approval for it. The procedure was designed in compliance with the World Medical Association Code (code number: CEI-106-160). For the whole of the process, the principles outlined in the Declaration of Helsinki were adhered to.

The broad objectives of this research, the technique that will be followed, and the ramifications of this study were explained to the coaches of the teams that participated in the study after first obtaining permission from the management of the clubs that were included in the study. In addition, the participants were briefed on the purpose of the research as well as the process that would be used, and they were given the assurance that the data and findings acquired would be kept in the strictest of confidence. After receiving informed permission from each individual who

took part in this study, the researchers next notified the participants about the location, day, and time of the examinations.

Rstudio 3.15.0 was used in the process of carrying out the computations necessary to determine the size of the sample. The level of significance was determined to be $\alpha = 0.05$. The mean value for the standard deviation, or SD, was determined to be 0.55 based on the results of earlier research on levels of competition. With an estimated error (d) of 0.17 for a sample size of $n = 38$; 0.21 for a sample size of $n = 27$; and 0.32 for a sample size of $n = 11$ respectively..

Participants

The sample included 38 semi-professional football players, 27 of whom were male and 11 of which were female. Participants belonged to the same football club and had ages ranging from 25.4 to 49.0 years on average (males were 28.4 to 46.0 years old, while females were 22.6 to 52.0 years old). We chose male and female players from the same club so that we could control for any potential effects that could be caused by contextual and cultural factors. For the men's squad, the average number of years spent playing football was 16.3 \pm 2.80 years; at the time that the study was conducted, the team was competing in its third season with the same coaching staff. For the women's squad, the average number of years spent playing football was 10.50 years, and at the time that the study was conducted, the team was competing in its third season with the same coaching staff. The selection of the sample was arbitrary for the sake of convenience and adhered to the relevant criterion. The following are the eligibility requirements: (1) all of the players' primary sport had to be football; (2) they had to have played for a minimum of ten years; and (3) they had to be registered for the current season in the third division of the Spanish football federation (semi-professional level).

Procedure

Prior to the beginning of each evaluation, the participants were given detailed instructions on how to conduct each exam. These instructions included familiarisation trials with the Objective Achievement Motivation Test (OLMT, Vienna Test System VTS, Schuhfried®), which was one of the assessments. The OLMT system itself is ready to suggest a succession of examinations to guarantee that the test is being comprehended in the appropriate manner. In the event that the system identifies a rise in the reaction latency before the emergence of stimuli or random responses that fall outside the predicted threshold values, it will stop allowing progress and will halt the system. When this stage was over, we gave each of them a copy of the Competitiveness Questionnaire-10 for them to fill out on their own. After that, the OLMT test was carried out on the patient. In the last step of the process, three knowledgeable observers used a standardised observation sheet to assess the performance of the players in each of the 10 soccer matches they had seen.

Instrumentation

In order to conduct a competitiveness test, Remor's Competitive Questionnaire was filled out by the participants. This is a self-report instrument that consists of 10 questions regarding the motivation related with sport competitiveness. The instrument comprised two factors: motivation for success (MS) ($\alpha = 0.66$) and desire to avoid failure (MAF) ($\alpha = 0.66$), as well as a final competitiveness score (MS–MAF).

For the purpose of gathering objective data on accomplishment motivation, the OLMT was used. The VTS, which was developed by Schuhfried GmbH in Modling, Austria, is a standardised, computerised, valid, and reliable test battery that has been used for psychometric assessment as well as to gain insight into the cognitive level and neurophysiology of human movement. It was created by the company. The objective of the OLMT is to determine an individual's level of accomplishment motivation on the basis of four different constructs. These constructs are assessed in three separate subtests, each of which requires the completion of the identical task on a computer screen. Pressing two buttons in rapid succession allows the user to proceed along a predetermined path cell by cell. They have 10 seconds to make the most progress possible and move as far as they can. Following the first step (motivation via the activity; task orientation), the responder is prompted to first establish objectives for themselves, and then to work towards accomplishing those goals (motivation through goals -task orientation-). The last part of the exam involves the responder competing against a virtual opponent whose speed is significantly greater than the speed the respondent obtained in the previous two parts of the test (motivation through competition -ego orientation-). The challenge for the response now is to perform better than the opponent. Since having other people around might have a negative impact on one's ability to maintain focused attention, the OLMT was completed by the participant on their own.

In the end, a record sheet was used in which three knowledgeable observers evaluated the performance of the players during 10 different football matches. The coaches who were studying to get the highest qualification possible (UEFA Pro level) in football served as the observers. They were not familiar with any of the players that participated in the research. A single item scale ranging from 0 to 10 was used to provide a subjective evaluation of the performance, with 0 representing poor performance and 10 representing great performance on the scale. Each of those who watched was asked to rate the performance that they saw in the players who were being assessed in each game, providing a final judgement of how they perceive performance to have been. In order to do this, we requested that they take into consideration how they felt the players performed in terms of their technical, tactical, physical, and psychological abilities. A low level of sports performance would be comparable to a low level of technical, tactical, physical, and psychological performance, while a high level of sports performance would result in the reverse of what was described above.

After the completion of the calculations necessary to determine the overall average score for each player over all ten matches for each individual observer, the total scores for each observer were then averaged across the three observers in order to generate data that was more trustworthy. There was a substantial association, as measured by Pearson's correlation coefficient ($r = 0.78$; $p = 0.009$), between the ratings given by the three different raters.

DATA ANALYSIS

In order to provide a test of the participants' level of competitiveness, the Remor's Competitive Questionnaire was given to them to complete out. This is a self-reporting questionnaire that consists of ten questions about the motivation associated with competition in sports. The instrument included a final score for competitiveness in addition to two components: motivation for success (MS) (= 0.66) and desire to avoid failure (MAF) (= 0.66). All of these items were weighted equally (MS–MAF).

The OLMT was used for the purpose of achieving the target goal of acquiring data on achievement motivation. The VTS is a standardised, computerised, valid, and reliable test battery that was created by Schuhfried GmbH in Modling, Austria. This test battery has been used for psychometric evaluation in addition to gaining insight into the cognitive level and neurophysiology of human movement. The corporation was the one that came up with the idea. On the basis of these four distinct constructs, the overall purpose of the OLMT is to arrive at a conclusion on the individual's degree of achievement motivation. The evaluation of these concepts is broken up into three distinct subtests, each of which involves the completion of an identical activity that is shown on a computer screen. The user may move along a predefined route cell by cell by pressing two buttons in fast succession. This enables the user to progress. They have ten seconds to make the maximum feasible progress and advance as far as they can in the time allotted. After the first phase (motivation via the activity; task orientation), the responder is asked to first set goals for oneself, and then to work towards reaching those goals. This step follows the first stage in which they were motivated by the activity (motivation through goals -task orientation-). In the last portion of the test, the responder will compete against a virtual opponent whose speed is substantially higher than the speed that the responder earned in the first two portions of the test (motivation through competition -ego orientation-). Now that the challenge has been set, it will be up to the respondent to do better than the opponent. Since being among other people may have a detrimental effect on one's capacity to retain focused attention, the OLMT was done by the participant on their own when they were alone in the room.

At the conclusion of it all, a record sheet was used, and three qualified observers assessed the performance of the players during 10 different football matches using that sheet. The observers were football coaches who were working towards the UEFA Pro level, which is the highest certification that can be achieved in the sport. They had no prior experience with any of the

individuals who took part in the study and hence had no familiarity with them. For the purpose of providing a subjective assessment of the performance, we chose a single item scale with a range from 0 to 10, with 0 denoting very bad performance and 10 denoting very good performance on the scale. It was requested of each person who watched that they grade the performance that they witnessed in the players who were being evaluated in each game. This was done so that a final judgement could be made on how well performance was seen to have been. In order to do this, we urged that they take into account how they believed the players performed in terms of their technical, tactical, physical, and psychological capabilities. A low level of athletic performance is analogous to a poor degree of technical, tactical, physical, and psychological performance; conversely, a high level of athletic performance would result in the opposite of what was mentioned in the paragraphs that came before it.

After all of the necessary calculations for determining the overall average score for each player across all ten matches for each individual observer had been completed, the total scores for each observer were then averaged across the three observers in order to generate data that was more reliable. This was done in order to produce information that could be relied upon. The correlation between the ratings that were provided by the three distinct raters was significant, as shown by Pearson's correlation coefficient, which was equal to 0.78 and had a significance level of 0.009.

Results

Table 1 contains descriptive analyses of the research variables as well as comparisons of the results based on gender. As a function of gender, significant differences were discovered in motivation via competition ($p = 0.021$) and self-reported competitiveness ($p = 0.020$), with men displaying higher scores in both instances. The results of these studies were determined to be statistically significant. Both the degree of ambition ($p = 0.283$) and the amount of motivation via personal objectives ($p = 0.897$) were found to be the same for both genders. Cronbach's alpha coefficients were calculated for the whole sample, and the results showed that both desire for success (MS) ($\alpha = 0.72$) and motivation to avoid failure (MAF) ($\alpha = 0.70$) had values that were within acceptable ranges.

Table 1. Analysis of male and female students' motivated by competition, ambition, personal objectives, and self-reported competitiveness.

| | Gender | Mean ± SD | Dif Mean | t | p | 95%ICC | d Cohen |
|-----------------------------------|--------|--------------|-------------|-------|-------|-------------|------------|
| Motivation through competition | Male | 5.05 ± 0.94 | 2.92 ± 2.69 | 2.41 | 0.021 | -2.55; 8.40 | 0.99 |
| | Female | 3.31 ± 2.30 | | | | | |
| | Total | 4.54 ± 2.14 | | | | | |
| Aspiration level | Male | 3.05 ± 2.09 | 0.82 ± 0.75 | 1.091 | 0.283 | -0.71; 2.35 | 0.39 |
| | Female | 2.22 ± 2.15 | | | | | |
| | Total | 2.81 ± 2.11 | | | | | |
| Motivation through personal goals | Male | 0.06 ± 3.54 | 0.17 ± 1.33 | 0.131 | 0.897 | -2.53; 2.88 | 0.04 |
| | Female | -0.11 ± 4.18 | | | | | |
| | Total | 0.01 ± 3.68 | | | | | |
| Self-reported competitiveness | Male | 1.21 ± 0.46 | 0.45 ± 0.18 | 2.44 | 0.020 | 0.07; 0.82 | 0.82 |
| | Female | 0.76 ± 0.62 | | | | | |
| | Total | 1.08 ± 0.54 | | | | | |

When players' age and sport performance were analysed as covariates, they did not significantly modulate gender differences in motivation through competition ($F = 1.493$, $p = 0.232$; and $F =$

0.368, $p = 0.549$, respectively), aspiration level ($F = 0.023$, $p = 0.881$; and $F = 0.689$; $p = 0.414$, respectively), motivation through personal goals ($F = 1.771$, $p = 0.194$; and $F = 0.0$

There was not a significant correlation found between objectively measured motivation (i.e., motivation through competition) and subjectively self-reported competitive motivation within the total sample ($r = 0.205$; $p = 0.217$), nor was there a significant correlation found between males and females ($r = 0.083$; $p = 0.680$) or between males and females ($r = 0.080$; $p = 0.815$).

In conclusion, there was not a significant link identified between the player's athletic performance and any of the motivational factors that were examined, and this was true for the whole sample as well as for both genders (Table 2).

Table 2. Examining the links between competitive drive, ambition, goal-directed motivation, and natural competitiveness in athletes.

| | | Motivation through Competition | Aspiration Level | Motivation through Personal Goals | Self-Reported Competitiveness |
|-------------------|--------|---------------------------------------|----------------------------|------------------------------------------|--------------------------------------|
| Sport performance | Male | $r = -0.010$; $p = 0.963$ | $r = -0.175$; $p = 0.436$ | $r = -0.061$; $p = 0.788$ | $r = 0.074$; $p = 0.743$ |
| | Female | $r = -0.345$; $p = 0.328$ | $r = -0.121$; $p = 0.738$ | $r = -0.172$; $p = 0.635$ | $r = -0.038$; $p = 0.916$ |
| | Total | $r = 0.096$; $p = 0.600$ | $r = -0.065$; $p = 0.722$ | $r = -0.049$; $p = 0.790$ | $r = 0.138$; $p = 0.453$ |

CONCLUSIONS

In conclusion, it is important to note that there was a significant difference between the genders in the level of competitiveness, with the level of competitiveness being higher in male football players on both the objective (that is, motivation through competition) and self-reported competitiveness measures. On the other hand, there were no significant differences observed in the aspiration level or the level of motivation achieved through personal goals. It would be beneficial to broaden our understanding of team sports, and more especially football, by looking at the factors that contribute to gender inequalities and the effects such factors have. It is also vital to reflect on the practical consequences of the findings obtained in order to stress the

significance that coaches should devote to accomplishment motivation viewed from the viewpoint of personality psychology. This was done in the previous sentence.

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