Elite Refereeing in Professional Soccer: A Case Study of Mental Skills Support

John F Mathers and Karen Brodie

School of Sport, University of Stirling, Stirling, Scotland, United Kingdom

Keywords: soccer refereeing, case study, mental skills,
Abstract

Refereeing a high profile soccer game requires a unique blend of sports specific knowledge, physical abilities and mental skills. Whilst mental skills instruction has been seen as an integral element of performance enhancement in elite sport, the application of sport psychology intervention for referees and match officials is far less prominent. This case study briefly describes the levels of stress associated with refereeing elite soccer matches and the impact of stress on officiating performance and subsequent self-confidence of soccer referees. The work then outlines the programme of mental skills intervention that was delivered to an elite soccer referee working within the Scottish professional soccer leagues. The programme of mental skills embraced five stages: (1) Education; (2) Assessment/profiling; (3) Mental skill learning; (4) Application of mental skills in context and (5) Evaluation, and this article centres on the way in which each of these stages was carried out. The case study describes how the mental skills instruction programme was associated with improved refereeing performance and provides some tentative advice for sport psychology practitioners who may wish to provide consultancy services within the domain of sports officiating.
Sports umpires, referees and their assistants are responsible for ensuring that competitive efforts of sports participants take place within the rules of the game and that match results are obtained fairly. Within the sport of association football (soccer), the referee typically makes 137 observable interventions in a single game (Helsen & Bultynck, 2004). This includes subjective decisions such as the awarding of free-kicks, penalties, corners, throw-ins and stoppages of play for injuries that may occur as the game unfolds. The responsibility of officiating has been associated with elevated levels of stress during high profile events because of large spectator numbers (Nevill, Balmer, & Williams, 2002; Pettersson-Lidbom & Priks, 2010), social events (Voight, 2009), physiological demand (Catterall, Reilly, Atkinson & Coldwells, 1993), the perceived importance of certain fixtures and the reputation for aggressiveness of a particular competitor or team (Folkesson, Nyberg, Archer & Norlander, 2002; Jones, Paull & Erskine, 2002). Excessive increases in stress have been associated with reduced decision-making effectiveness (Downward & Jones, 2007), a decline in refereeing performance and a reduction of referee self-confidence in subsequent appointments (Alonso-Arbiol, Falco, Lopez, Ordaz & Ramirez, 2005; Mascarenhas, O’Hare, & Plessner, 2006; Wolfson & Neave, 2007). Studies by Nevill and Holder (1999) and Sutter and Kochera (2004) concluded that officials favoured the home team in subjective decisions such as the number of fouls, penalties or sanctions awarded. Boyko, Boyko and Boyko (2007) studied the refereeing decisions made in English Premier League games and found evidence that the referee had a significant effect on the number of goals scored or conceded. Nevill et al. (2002) suggested that referees were more lenient when awarding fouls against home players and that this bias was the result of social pressure caused by the presence of spectators. In many of these studies however, the level of home bias was found to reduce as refereeing experience increased, suggesting that referees may acquire effective coping mechanisms for dealing with
crowd pressure through exposure to the stressful environment (Boyko et al., 2007; Williams, Davids & Williams, 1999). These findings have led to calls for mental skills training to become a key component of referee training so that officials are equipped to control their levels of arousal, attentional focus and ultimately, the accuracy of their decision-making (Dohmen, 2008; Mascarenhas, Collins & Mortimer, 2005; Lane, Nevill, Ahmed & Balmer, 2005; Piffaretti, 2008). Mental skills training is particularly relevant to football (soccer) referees in Scotland where the game is seen as a national passion and is home to one of the most fiercely contested domestic fixtures in world football. The ‘Old Firm’ match is contested in Glasgow, Scotland, between the city’s two main rivals (Glasgow Rangers and Glasgow Celtic) and is played within a history of cultural and religious differences (Boyle & Haynes, 1996; Bradley, 2006; Deuchar, & Holligan, 2010). The performance of referees who take charge of such fixtures is subject to an intense media scrutiny that can create a debilitating level of stress for match officials. The need for mental skills training for referees in such circumstances would appear to be self-evident.

**Assessing refereeing performance**

The performance of referees within the Scottish leagues is assessed by Referee Observers who are appointed by the Scottish Football Association (SFA). Referee Observers make a live appraisal of a referee’s performance at a domestic fixture then review a recording of the match (on DVD) to check the accuracy of the decisions that were made. This information is then used to compile a Referee Observer’s Report that assesses the referee’s positioning within the game, management of the game and application of the laws of the game. Referees who deliver consistently poor performances may be demoted to a lower officiating category whilst referees who return consistently high performances are appointed to take charge of high profile domestic fixtures. At the end of the season a small number of the highest performing referees are
nominated to officiate at European fixtures, where a similar system of referee appraisal is carried out by FIFA Referee Observers. The performance scores of referees in European fixtures are then used to select referees to officiate at FIFA world cup fixtures, which are seen as the pinnacle in achievement for soccer officials. Thus, there is a clear career pathway for a referee to progress from national domestic fixtures, to the highest level of match officiating in world soccer.

The article will provide details of the mental skills programme that was delivered to an elite soccer referee working within the Scottish Leagues and his progression from national to international refereeing. The case study outlines the participant, the mental skills programme, provides an evaluation of the work and makes suggestions for sport psychologists and match officials who are working in similar fields.

The Participant

The mental skills programme was introduced by the Scottish Football Association’s Referee Development Department as an innovative component of referee training. The programme delivered a series of awareness lectures to the elite (Category 1) referees and provided an individual mental skills programme to a thirty-seven year old SFA Category 1 referee who had officiated within Scotland for over 15 years. The referee was recognised as one of the top referees within the Scottish Football Association and had already been nominated to officiate in European fixtures. However, the majority of his European appointments had been within the lower tier of European Fixtures (Europa League) at the onset of the programme.

The intervention

The mental skills intervention followed a multi-stage model that embraced the design and delivery guidelines proposed by Gordon (1990), Poczwardowski, Sherman and Henschen (1998), and Mascarenhas et al. (2005). The model allowed behaviour
change to be encouraged through the following phases: (1) Education; (2) Assessment; (3) Mental skill learning; (4) Application of mental skills in context; (5) Evaluation.

**Education**

The first stage of the intervention aimed to increase the referee’s awareness of mental skills training and the potential benefits to be gained from regular mental skills work. Previous research has highlighted negative perceptions of sport psychology within football (soccer) in the UK and the referee was given an opportunity to explore his existing beliefs and perceptions about psychology before undertaking any mental skills training (Gilbourne & Richardson, 2005; Pain & Harwood, 2004). The awareness of mental training was raised through a series of case studies that outlined the way in which elite performers had used mental skills to develop their performances in pressure situations. This approach demonstrated how elite athletes had used imagery, goal setting, positive self talk and relaxation to deliver performance in competition and how the psychological issues faced by referees in match settings were similar in scope to those faced by elite performers in major events (Hill, 2001).

**Assessment/Profiling**

This stage of the intervention required the participant to outline the performance criteria for elite refereeing then create a performance profile that identified the areas for modification of behaviour (Butler, 1989; Jones 1993). The criteria for elite refereeing were identified using the FIFA guidelines for match officials (FIFA, 2008) and the performance profile was established by assessing the referee’s baseline performance. Assessment of performance (pre-intervention) was carried out using a triangulated approach that involved the referee’s self-assessment, observation of the referee by the sport psychologist and independent match reports provided by SFA Referee Observers. The assessment was carried out over a period of three weeks within the competitive season so that the referee could become more acutely aware of the circumstances and
individual behaviours that were most closely associated with a successful performance *in situ*. A semi structured interview technique was used to allow the referee to identify his long term ambitions (outcome goals), the key determinants of successful refereeing (performance goals) and the particular skill set that was associated with a peak performance (process goals) (Arksey & Knight, 1999; Douglas, 1984). **The long-term (outcome) goals included an increase SFA Referee performance scores from baseline (onset of the programme) to the end of the intervention season and to increase the number of upper tier European (UEFA) and World Cup (FIFA) appointments from season 2007-2008 to season 2009-2010.** The goal setting process was carried out according to the (SMARTER) principles that are implicit in work of this type (Wadey & Hanton, 2008). A summary of the referee’s medium term goals are displayed in Table 1.

Insert Table 1 near here

The short term (process) goals were agreed during a subsequent meeting and centred on the development of specific mental skills (i.e. imagery, positive self talk, relaxation training and pre-match routine) that aimed to increase the likelihood of the higher level goals being achieved.

**Mental Skill Learning**

The content of this stage was based on the findings of research studies that have shown a link between imagery, positive self-statements, relaxation, pre-match routine and level of self-confidence (Hall et al., 2009; Short, Tenute & Feltz, 2005; Vadocz, Hall & Moritz, 1997; Vickers & Williams, 2007; Voight, 2009). Firstly, the referee was encouraged to recall and describe situations in recent fixtures in which the performance goals had been achieved. Each situation was described from the visual-external perspective in the first instance and then through a visual-internal and kinesthetic perspective to create a detailed mental image of the desired behaviour. The referee then
replayed the same image adding in more details about the match surroundings and verbalised the performance goal with appropriate adjectives, verbs and nouns that were used to create positive self-statements. These mental skills were practiced on a daily basis, and where possible, in a real-life context. There were occasions when the referee gained access to the (empty) fixture stadium in the days prior to the event so that the performance goals could be rehearsed. During this exercise, the referee completed his standard physical warm up routine (whilst dressed in his referee’s uniform and carrying his usual equipment: a whistle, two stop watches, pencil, notebook and sanction cards) then moved onto the field of play (carrying the ball) through the players’ tunnel. Then he imagined the sight and sound of the crowd (likely to be in excess of 60,000 spectators), then moved around the empty field of play rehearsing goal behaviours such as the body shape to be adopted when addressing players, the arm signals to be used whilst awarding decisions and the tone of whistle to exert control of the game. Over the next few weeks, the referee experimented with physical and mental relaxation techniques to regulate his level of emotional state through a personalised log book and task cards that were read in the final few minutes before the match began, and during the half time interval. These mental skills were practiced within a pre-match behavioural routine that aimed to regulate the referee’s level of emotionality, arousal and subsequent attentional focus.

**Apply mental skills in context**

This stage of the intervention took place three weeks after the initial meeting and after the referee had indicated he was comfortable with the application of some of the mental skills in match settings. The referee’s first opportunity to apply these mental skills in context was during a league fixture in the Scottish Premier league between two mid table teams. This appointment was seen as ‘moderately stressful’ and provided an opportunity for some of the behavioural changes to be made. The referee chose to focus
on three of the performance goals (see Table 1) in the first instance. This was agreed so that the referee could modify his performance at a manageable pace, rather than be overloaded with an influx of mental skill techniques that could be detrimental to his refereeing performance (Zoudji, Thon & Debu, 2010). At the end of the game the referee engaged in a post-match period of reflection and completed a self evaluation questionnaire that revealed the extent to which he felt that the performance goals had been achieved. The sport psychologist also attended these games so that the refereeing behaviour could be observed and primary data could be recorded in relation to the performance goals that were chosen. There were occasions when the sport psychologist was equipped with a radio headset so that the communication between the referee and his assistants, and the referee’s instructions to players, could be heard throughout the match and this provided excellent data on which future consultations were based. The referee and the psychologist met to discuss each performance about 48 hours after a match had concluded. This process was repeated over the next two months in which the referee chose to focus on three of the performance goals within each specific appointment. These goals were chosen in relation to the performance profile that had been carried out during the assessment stage and were prioritised according to their perceived impact on the outcome goals. At the end of this eight week period, the referee was able to monitor any improvements in performance and identify areas where continued intervention was required. The frequency of meetings between the referee and the psychologist was systematically reduced from weekly in the first month of the programme, to fortnightly in the second month as the referee assumed more control over his own progress. After a period of three months, the referee and sport psychologist met on a monthly basis to ensure that the performance system that had been established continued to work effectively.

Evaluation
The programme of intervention was evaluated using a qualitative approach that aimed to assess the extent to which the referee had achieved the outcome goals that were set at the start of the programme. The evaluation was carried out using (1) a comparison of the number and level of UEFA/FIFA refereeing appointments that were awarded in the seasons before, during and after the intervention period (2) an analysis of an interview that explored the referee’s perceptions of the intervention programme and (3) the Sport Psychology Consultant Evaluation Form (SPCEF) (Partington & Orlick, 1987). The qualitative data was collected during a semi structured interview that was carried out by an independent researcher who was not involved in any aspect of the intervention delivery.

Results

The results of the evaluation suggest that the mental skills programme had a beneficial effect on the referee’s performance during the intervention period and the time thereafter. Table 2 shows the number (and level) of UEFA and FIFA appointments awarded to the referee participant in the season prior to the intervention programme (2007-08), the intervention season (2008-09) and the season immediately following the intervention (2009-2010). The results show an increase in the number (and level) of European and World Cup appointments in the season of the intervention and the season immediately post intervention.

Insert Table 2 near here

The referee acknowledged the positive impact of the mental skills intervention during the semi structured interview. He revealed that the mental skills programme had made a positive affect on his self confidence and that this was an important factor in the extent to which the outcome goals were achieved. The referee stated:

"I could see the improvement [in myself] by the way I was feeling before, during and after matches”. I think refereeing is largely based on confidence…and [the
The referee conveyed feelings of improved self-confidence and performance as a result of the programme and acknowledged the difficulty of demonstrating ‘tangible performance improvement’ within a referee who was already working at an elite level. The referee also acknowledged the positive impact made by the programme through the results of the SPCEF and stated:

“The psychologist was expert in the observation process and was positive, constructive and completely trustworthy. He helped me prepare and perform.”

These results stressed the importance of a positive interpersonal relationship between psychologist and the referee when discussing progress and development.

**Discussion**

The results of the evaluation seem to suggest that the mental skills programme was associated with an improved refereeing performance. Previous work in elite sport has highlighted the importance of any improvement when the difference between success and failure is small (Hughes & Bartlett, 2002). Whilst the number of UEFA and FIFA appointments (Table 2) is encouraging, it is acknowledged that the data is associative rather than causal and cannot be taken as conclusive evidence of improved performance. Moreover, the number of FIFA appointments available for any particular season will vary according to the proximity of the World Cup Finals which take place within a four year cycle. However, the increase in both the number and level of European fixtures that were awarded in the season of the intervention and the post intervention season could be viewed as an indicator of improved performance and was in line with the referee participant’s long term goals.

The interview data revealed that the intervention programme had a clear rationale within refereeing in Scotland and that the sport psychologist adopted a flexible approach that allowed the referee to make suggestions about the ways in which mental
skills could be applied and developed. These findings emphasise the importance of the sport psychology consultant’s interpersonal skills when attempting to encourage behaviour change (Lubker, Watson, Visek & Geer, 2005).

The referee welcomed the integration of the intervention with other aspects of referee training, such as physical conditioning, traditional match preparation and self analysis, rather than as a replacement or a departure from existing practice. This appears to be in line with previous work that has stressed the need for existing practice habits to be modified rather than altered radically (Sinclair & Sinclair, 1994). A pool of new mental skill materials was provided to supplement the existing resource network, and this appealed to the holistic perspective proposed in previous consultancy work delivered within the football community (Gilbourne & Richardson, 2006).

Data from the semi structured interview also acknowledged the importance of generating a state of participant self-sufficiency. Although the mental skills consultation programme lasted only for a few months, the referee became committed to the inclusion of the programme’s mental skills in the time after formal sport psychology instruction had come to an end:

"There was more of a structure in place…. and I carried on this exercise to the end of the season. It’s now something that I do in all my matches…thinking about the teams, thinking about the tactics, but also thinking about how I am going to approach the games, how I will visualise the stadium, the noise, the atmosphere, etc. I create a picture to step in to."

A central feature of the delivery programme was the sport psychologist’s commitment to become immersed in the refereeing profession and to recognise the scale and importance of the refereeing tasks. This quality was acknowledged by the referee participant in the semi-structured interview:

“It would have been difficult to accept advice from somebody that was not able
to appreciate the live match and the pressures that go with it….It was as close to the sports psychologist being on my shoulder for the whole game because he heard the dialogue, the pressures… the stress.”

Finally, the intervention programme was tailored to the availability of the referee so that specific consultancy meetings took place at times and venues that integrated within the referee’s other commitments. This ‘on the road’ delivery allowed the intervention to integrate fully with the referees other tasks and duties.

**Conclusion**

The mental skills work that was delivered to this elite referee seemed to coincide with some improvements in refereeing performance. Whilst these outcomes would be in line with a successful programme of mental skill instruction, it is the delivery features that may be of most relevance to sports psychology practitioners. Sports psychologists should ensure that there is a clear logic and rationale for the work and aim to build a productive working relationship during the initial contact with the referee. Whilst refereeing cannot be considered a competitive sport, there are obvious parallels that exist between officiating in high profile matches and performance in elite sport and these links should be cultivated so that match officials can appraise the potential benefits of mental skills training. Sports psychologists may wish to immerse themselves in the refereeing context through network coverage, journal articles and popular autobiographies to allow an effective application of scientific knowledge to the refereeing context. Care should also be taken to ensure that valid and reliable performance measures are established and the efficacy of the mental skills intervention can be properly appraised. The referee should be encouraged to become self-aware and the frequency of consultancy sessions should be reduced as the referee becomes more self sufficient. Lastly, the referee should remain at the centre of the intervention programme and retain a major input to the direction of the work.
References


Table 1

Summary of the referee’s medium term goals

<table>
<thead>
<tr>
<th>Category</th>
<th>Performance goals</th>
</tr>
</thead>
</table>
| Physical    | To keep up with the pace of play consistently  
To demonstrate an ‘athletic’ technique when moving into position  
To arrive at breakdown points with speed and composure |
| Technical   | To create the optimal observation angle  
To call each decision on its own merit  
To communicate with Assistant Referees in cases of doubt |
| Interpersonal | To interact with players proactively  
To use clear hand signals for players and spectators  
To use a neutral facial expression when issuing sanctions |
| Emotional   | To portray a high level of self confidence throughout the match  
To focus attention when major decisions are most likely  
To remain physically relaxed and externally focused |
Table 2

Number of UEFA and FIFA refereeing appointments (2007-2010)

<table>
<thead>
<tr>
<th>Season</th>
<th>Europa League (UEFA lower tier)</th>
<th>Champions League (UEFA upper tier)</th>
<th>World Cup (FIFA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-2008 (pre-intervention)</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2008-2009 (intervention)</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2009-2010 (post-intervention)</td>
<td>3</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>