

Examining the Use of Psychological Skills Throughout Soccer Performance

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The present study examined the effects of a soccer-specific psychological skills intervention comprising self-talk, relaxation and imagery, on three performance subcomponents specific to midfield players throughout performance. Using a modified multiple baseline across individuals design, three participants had three performance subcomponents (passing, first touch and tackling) assessed across first and second half of performance, for a period of eight competitive games. The results showed the intervention to be effective in enhancing performance in the second half of performance for all participants in at least two of the performance subcomponents. As such, the findings provide some evidence to suggest that psychological skills may affect performance in differing ways throughout competition. Given the findings, potential applied implications and future research directions are discussed.

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Recent advances in the applied sport psychology literature have seen an increase in the number of empirical studies supporting the positive influence of psychological skills training on sports performance (e.g., Rogerson & Hrycaiko, 2002) and in particular, soccer-based performance (e.g., Johnson, Hrycaiko, Johnson, & Halas, 2004; Thelwell, Greenlees, & Weston, 2006). Despite the upsurge in interest, there remain three important areas requiring attention. First, it is only of late that researchers have provided a rationale for the selection of skills within interventions. Second, many studies (e.g., Patrick & Hrycaiko, 1998; Thelwell & Greenlees, 2003) have focused on measuring the influence of interventions on global performance outcomes, without acknowledging performance subcomponents. Third, little is known regarding the extent to which psychological skills influence performance throughout competition.

Responding to the first issue, recent studies in swimming (Hanton & Jones, 1999), ice-hockey (Rogerson & Hrycaiko, 2002), cricket (Thelwell & Maynard, 2003), and endurance events (Thelwell & Greenlees, 2003) have forwarded rationales for the selection of psychological skills within their interventions. For example, Thelwell and Greenlees used Taylor's (1995) conceptual framework to examine the effects of a psychological skills training package on competitive gymnasium triathlon performance. Specifically the framework suggests that practitioners should consider the psychological priorities for the sport and base their intervention approaches on the psychological requirements of the task. Therefore using Taylor's approach in conjunction with related previous literature, the researchers were able to determine what, why and how the skills should be selected and delivered.

Although recent studies have acknowledged the importance of providing a rationale for the selection of the psychological skills, many studies have failed to consider the second important issue, which is the lack of focus on the measurement of performance subcomponents. While the measurement of overall performance may be appropriate in some sporting situations, one could argue that measuring pertinent performance subcomponents in other sports may be more informative (e.g., passing success in soccer), where individuals have positional responsibilities. With this in mind, it is interesting that few studies have examined the influence of psychological skills on sport, or even role-specific requirements that performers are required to execute in order to perform successfully. Of the research that has adopted this approach, positive results in varying basketball skills (Kendall, Hrycaiko, Martin, & Kendall, 1990; Swain & Jones, 1995), tennis volleying (Landin & Hebert, 1999), ice-hockey goal-tender save percentage (Rogerson & Hrycaiko, 2002) and shooting performance in soccer (Johnson et al., 2004) provide evidence for the potential benefits of monitoring performance subcomponents.

In addition to the above, Thelwell et al. (2006) conducted a study examining the effects of a psychological skills intervention, on performance subcomponents (first touch, passing, tackling) deemed as being specific to a midfield soccer player. Using a multiple-baseline across individuals design, five participants received an intervention comprising relaxation, imagery and self-talk that was delivered specific to their role as a midfielder, and had the three performance measurements assessed across nine competitive games. The authors reported positive findings having delivered the intervention with all performers experiencing at least small improvements on each of the performance measures. Taken with the findings from Johnson et al. (2004), Thelwell et al. proposed the administration of a position-specific intervention to be appropriate within a soccer context. They also proposed that it may be appropriate to consider further specific role requirements. For example, they commented that a defensive midfielder may require a greater focus on tackling rather than passing, while an attacking midfielder (also known as a "playmaker") may have a greater focus on first touch and passing. As such, practitioners should be aware of the roles that players have, to enable effective intervention development and delivery.

With recent research acknowledging both the need for appropriate intervention rationales and the consideration of alternative measures of performance, there remains a lack of knowledge to how psychological skills may influence performance during different stages of competition. Taken that many sports are comprised of multiple sessions (e.g., two halves in soccer, rugby union, field hockey and college basketball, four quarters in professional basketball and American football, varying sets in tennis) and that performance may deteriorate towards the latter stages of a competitive game due to the physiological requirements of the task, it may be that psychological skills enable maintained performance levels towards the end of a game where it could be argued that performance subcomponents are affected (McMorris & Graydon, 1997). The potential for monitoring the influence of psychological skills on performance throughout performance is reinforced further by Butt, Weinberg, and Horn (2003) who reported significant fluctuations in anxiety states to influence performance throughout competition. Thus, it could be postulated that if anxiety states fluctuate, the employment of appropriate psychological skills to counter the anxiety may fluctuate, which in turn may affect performance. Taken together, it seems appropriate to understand what happens throughout competition.

In summary, the main purpose of the present study was to examine the effectiveness of a psychological skills intervention on role-specific performance subcomponents during different stages of competition. A further aim of the study was to develop the research base investigating the effects of psychological strategies within soccer, where little applied research has been conducted.

Method

Participants

The three participants in the study (age range = 20-23 yrs) were of white-European ethnicity and were self-reported amateur midfield soccer players who played in their appropriate position throughout the duration of the study. Each participant represented a team in a regional Football Association (FA) league and reported that they had played in a midfield position for the majority of their soccer playing careers. Participants also had 'a limited knowledge' of sport psychology, with none of them having previously undertaken structured psychological skills training. All participants volunteered their consent to participate in the study.

Positional requirements

With the present investigation being focused on the soccer midfielder, an understanding of the positional requirements is necessary. The primary requirement is to have physical characteristics that enable the performer to be able to cover vast distances throughout games that normally last 90-minutes. Such an assertion is endorsed by the widespread motion analysis literature (e.g., Rienzi, Drust, Reilly, Carter, & Martin, 2000) that has suggested elite English Premier League midfield soccer players run in the region of 12,000m per game via repeated intermittent short sprints, which represents a greater distance than the average for individuals who play in either defence or attack (Strudwick & Reilly, 2001). Further to the physiological demands, midfielders are required to conduct complex motor skills such as tackling while in motion, and, receive the ball and pass it on when an opponent is moving towards them. They are also required to utilize perceptual skills such as knowing when the ball will arrive, and decision-making skills which may include knowing the correct pass to make, and knowing when to tackle an opponent. The ability to conduct such skills is significant to the midfielder as their primary tactical role within a team is to link both the defensive and forward units.

Dependent Variables

The present study had a total of three dependent variables that were measured at two intervals. The variables were: pass percentage, tackle percentage, and first touch percentage, while the intervals were first and second half performance. Each of the dependent variables were defined as the number of passes, tackles, first touches (for either first or second half) that were successful, divided by the total number attempted, and multiplied by 100. The performance subcomponents were selected on the recommendation of three United European Football Association (UEFA) B License coaches who suggested them to be pivotal to the role of a midfield player, and from literature that has suggested them to be the most pertinent technical

skills for a soccer midfielder (Luongo, 1996). Clarification of the performance subcomponents with the coaches enabled a successful pass to be defined as “a pass that reaches its destination”, a successful tackle to be defined as “where you complete a clean tackle and gain possession of the ball or the ball is in possession by your team”, and a successful first touch to be defined as “where you bring the ball under control with one touch and no other movements to shield the ball from opponents are necessary”.

Experimental Design

A modified multiple-baseline across individual's single-subject design was employed in the present study (Martin & Pear, 2003). The multiple-baseline across individuals design has been advocated in recent applied research (e.g., Johnson et al., 2004) as being appropriate to the applied practitioner because individual performance can be tracked pre- and post-intervention. This is not possible when data is collected and analyzed within a nomothetic approach (see Hrycaiko & Martin, 1996). With Martin and Pear (2003, p. 288) citing a potential problem with this design to be where the first participant may explain the treatment to other participants, hence causing an improvement in the absence of treatment, the researchers stressed to the participants not to discuss their interventions with others given that it was specific to themselves.

The data collection took place over an eight-game period (all fixtures being competitive league games). Typically, the introduction of the intervention within a single-subject multiple-baseline design takes place when a stable baseline of the dependent variable is achieved, or when performance moves in an opposite direction to that expected following the intervention being administered (Kazdin, 1992). However, given that the present study examined three dependent variables (across the two intervals; first and second half), rather than the traditional single variable, the typical approach to introducing the intervention was not appropriate. While Martin and Pear (2003) advocate the employment of a 'primary' dependent variable to be used to determine the time of intervention when multiple variables are being examined, the research team deemed this as inappropriate seeing that each of the measures carry equal importance to the soccer midfielder. To overcome this concern, the research team made an '*a priori*' decision to when participants would receive the intervention as employed by Thelwell et al. (2006). As such, there was a sequential introduction of the intervention over the eight-game data collection period. Therefore, participant 1 received the intervention after match 3, participant 2 received the intervention after match 4, and participant 3 received the intervention after match 5.

Psychological Skills Training Package

The psychological skills training package comprised of relaxation, imagery, and self-talk was delivered to each of the midfielders across a three-day period by a British Association of Sport and Exercise Science (BASES) Accredited Sport Psychologist. While the present section is to provide an insight to how the interventions were delivered, it also provides a rationale to why the skills included within the intervention are appropriate for the role of a soccer midfielder.

Firstly, using the recommendations forwarded by Taylor (1995), and from developing an understanding to the specific midfielder role, relaxation strategies were delivered to enable performers a greater perception of control for both the physiological and psychological demands throughout performance. Relaxation may also influence the number of cognitive resources available for the potentially complex decision-making and perceptual characteristics of the position, especially towards the latter stages of a competitive match (Landers & Boutcher, 1998). Further to this, relaxation may benefit an individuals' attentional focus when playing well, or when incorrect decisions, or errors in perception and decision-making are made. Therefore, relaxation may enable performers to maintain appropriate levels of activation rather than experience rapid increases following errors (Hanin, 2000).

The delivery of the relaxation strategies took place in a two-stage approach. To begin with, participants were introduced to what relaxation is, and when it may be beneficial within their role as a midfielder. From experiencing Progressive Muscular Relaxation (PMR), to raise awareness of tension and relaxation, midfielders were able to develop an understanding to when varying states of tension and relaxation may be of benefit throughout a competitive match. For the second stage, participants were introduced to the centering strategy, which was designed to enable them to relax while not being physically involved with play. Each participant was able to acknowledge that the primary objective of this strategy is to enable a mechanism for quick and effective relaxation while focusing attention on relevant cues in the environment (Rogerson & Hrycaiko, 2002). Participants were also encouraged to use the strategy in training sessions when they were not involved with play, and in particular when there was a break in play, or they had just made an error.

The inclusion of imagery within the intervention is also in accord with the recommendations forwarded by Taylor (1995). Imagery can benefit motivation and perceived competence where performers are able to imagine themselves successfully completing specific motor, perceptual and decision-making acts. Imagery may also benefit preparatory issues such as passing strategies, developing potential behavioral and performance responses based on how the opposition may play, and how they may approach situations based on the tactical system their own team is playing (Evans, Jones, & Mullen, 2004). Finally, imagery may provide confidence in decision-making and perceptual responses in the latter stages of performance where percep-

tual sensitivity may be reduced due to task-irrelevant factors causing decrements in motor performance (Munroe, Giacobbi, Hall, & Weinberg, 2000).

Imagery was introduced by explaining how and why it could benefit their role throughout performance. Exercises designed to demonstrate the difference between internal and external imagery, speed of images, and its relationship to performance success and recovery following errors, were completed with each of the participants. Specific to the performance sub-components, the imagery exercises attempted to stimulate as many of the senses as possible. For example, a range of senses can be employed to see and feel their recovery from a poor first touch, making successful passes, recovering from tackling errors, and making successful runs and shot execution when fatigued. Each participant was also encouraged to develop a competition-specific imagery script, encompassing all aspects of imagery.

In keeping with the rationale for the previous two psychological skills, self-talk was also included based on Taylor's (1995) recommendations, and from findings of previous research (e.g., Hardy, Gammage, & Hall, 2001). Specifically, motivational self-talk may be employed for issues that relate to maintaining and increasing drive and arousal levels, both of which are essential for a midfielder. Towards the latter stages of performance, it could be that motivational self-talk is necessary to help maintain arousal, drive and also focus, seeing as this is often perceived as being when motivation can deteriorate (Hamilton, Scott, MacDougall, 2007; Hatzigeorgiadis, Zourbanos, & Theodorakis, 2007). In addition to the motivational self-talk, individuals may also benefit from position specific mastery self-talk, which addresses issues such as focus, self-confidence and coping with difficult situations. Mastery self-talk is suggested to benefit a focus on process goals, and provide appropriate motor co-ordination throughout performance, as opposed to focusing on task-irrelevant factors (Hardy et al., 2001).

The introduction of self-talk took the form of discussing the types of self-talk typically employed by the participants in varying match situations. Having identified typical responses for each participant, the intervention was delivered using a three-step approach. The first stage focused on the construction and use of appropriate positive self-talk from using key words and competition affirmations. Further to this, each participant developed a list of affirmation statements that they were able to use in a competitive setting. Having identified relevant affirmations and self-talk, the second stage consisted of identifying when participants use negative self-talk and understanding how it may affect performance. From this, each participant then completed an exercise designed to restructure unwanted negative thoughts to positive, motivational or challenging thoughts, which were perceived to be more conducive to effective, focused performance. The final stage was to identify when the new instructional/focus talk would be appropriate throughout performance.

Procedure

Having contacted the coach of the club in question, the lead author met with the participants to provide an overview of the study. Each of the participants normally played in one match per week (unless there were additional league, or cup games mid-week) and attended training sessions twice a week where the first session typically addressed fitness, and the second on match preparation and strategy development.

For each of the eight competitive fixtures, performance data for the three position specific sub-components across each half were collected using match analysis procedures as recommended by Reilly (1996). Specifically, one researcher was in attendance for all competitive games and assessed the performers on each performance sub-component. Intervention delivery took place over a three-day period with relaxation being covered on day one, imagery skills on day two and self-talk skills on day three. Sessions lasted no longer than two hours and were conducted at the University campus where the first author was based.

Treatment of data

The performance data for passing, tackling and first touch for each half, for each participant, across each of the eight competitive league games, were graphically plotted (see Figures 1, 2, and 3). Analysis of the performance data took the form of visual inspection as recommended by Martin and Pear (2003, p.290) where intervention effectiveness was assessed on: (a) the number of data points that overlapped between the pre-intervention and post-intervention phases, (b) the immediacy of an effect following intervention, (c) the size of an effect after intervention, and, (d) the number of times that the intervention effects were replicated across the participants, where increased consistency indicates a generalized pattern of the experimental effects.

Social Validation

Following the data collection period, social validation questionnaires were administered to the participants. The purpose of the social validation was to assess the participants' reactions to the treatment procedures and experimental outcomes (Pates, Maynard, & Westbury, 2001). Consequently, the social validation was designed to provide information concerning the participants' perceptions to the importance of the study and to how effective they perceived the intervention to be via the following questions: (a) "Separating first and second half performance apart, how important was an improvement in performance to you?" with responses ranging from 1 (*not at all important*) to 7 (*extremely important*); (b) "Do you consider the changes in performance to be meaningful?" with responses ranging from 1 (*not at all meaningful*) to 7 (*extremely meaningful*); (c) "How satisfied were you with the psychologi-

cal skills training program?" with responses ranging from 1 (*not at all satisfied*) to 7 (*extremely satisfied*); (d) "Has the intervention proved useful to you?" with responses ranging from 1 (*not at all useful*) to 7 (*extremely useful*).

Results

Data and Procedural Reliability

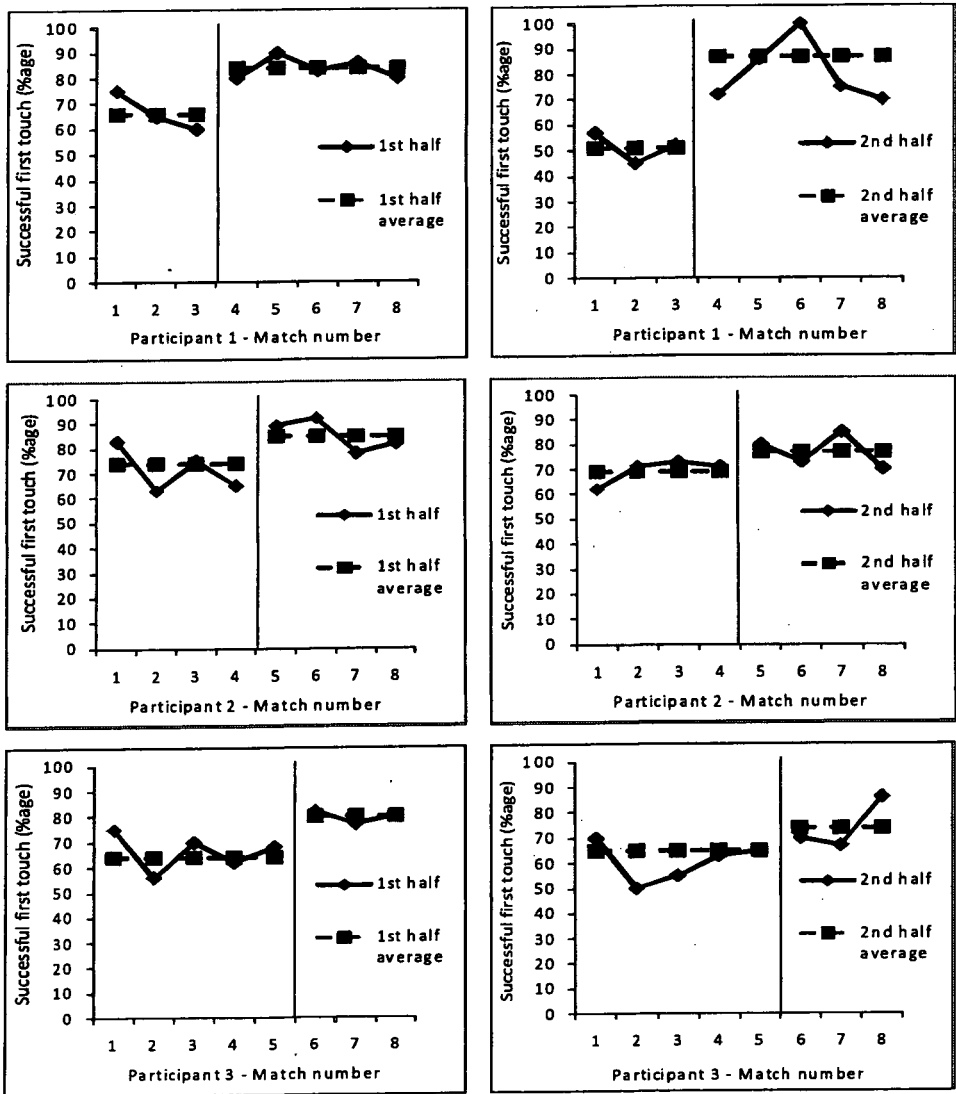
Prior to the collection of performance data, the researchers and a fourth individual who was external to the research group, and also a qualified soccer coach, attended a series of training sessions and competitive games to attain accuracy in their methods of identifying data for each of the three performance sub-components. The researchers and independent researcher individually rated the performance sub-components at each of the training sessions and games until inter-observer reliability was greater than 80% (Hrycaiko & Martin, 1996). Having achieved suitable inter-observer reliability, the independent researcher collected performance data throughout the study. Procedural reliability was also checked by the independent researcher who checked that the intervention elements had been applied consistently and correctly.

Intervention Effects

First Touch. All of the 'first touch' performance data is presented in figure 1. It is clear that pre-intervention, participant one's second half performance was poorer when compared to first half performance. In the post-intervention phase, the first half performance improved. Further, for first half data, no overlapping data points across the pre- and post-intervention phases were evident. For the second half data, mean performances improved post-intervention (to levels higher than those achieved post-intervention for the first half). However, the performances were inconsistent with large variance around the mean score. Despite the inconsistency, all performances post-intervention were above those pre-intervention, with no overlapping data points.

Participant two had lower pre-intervention mean scores for the second half compared to first half. Post-intervention, both first and second half performance increased (via observation of the mean score) although it must be noted that second half performance did not increase to the level of first half performance. The data for post-intervention first half performance showed some variation around the mean with one overlapping data point across pre- and post-intervention conditions, and while there was variation around the mean for second half performance there were two overlapping data points across the pre- and post-intervention conditions.

Figure 1. First touch completion for first- and second-half performance across competitive games pre- and post-intervention (vertical bar) compared to each participant's average performances



Participant three had similar pre-intervention performances in each half. Also, while participant three improved performance in both halves post-intervention, the increase in the first half was greater than the second half. For first half performance the scores were consistent around the mean and there were no overlapping data points across conditions. For second half performance, there were two overlapping data points out of the three, but the final data point was much higher than the mean score.

Passing. The 'passing' data for each participant is presented in figure 2. Participant one appeared to have similar mean levels of performance for first and second half pre-intervention. Post-intervention the increased mean scores were also similar for each half with equal variability around the mean scores. Despite the lack of consistency in scores post-intervention, there were no overlapping data points across each condition for either first or second half performance.

Participant two had a pre-intervention mean score for second half performance that was approximately 10% lower than that achieved in the first half. Secondly, post-intervention there was only minimal improvement in first half performance, with numerous overlapping data points. However, the trend in the data was continually positive throughout the post-intervention phase. Finally, for second half performance post-intervention, performance decreased.

Participant three experienced similar mean performance levels across first and second halves pre-intervention. Interestingly, while their post-intervention first half mean scores decreased (albeit with a number of overlapping data points to the pre-intervention phase), they experienced improved second half performance. Further to this, there were no overlapping data points for the second half data across the pre- and post-intervention phases.

Tackling. The 'tackling' data is presented in figure 3. Although participant one had similar mean performance levels for first and second half pre-intervention, there were contrasting effects post-intervention. Specifically, first half performance improved despite two overlapping data points, while second half mean performance decreased, even though two data points were above the mean for pre-intervention.

Participant two had slightly better first half performance pre-intervention compared to second half. However, the first half performance was inconsistent. First half performance post-intervention showed an improved mean score with scores being consistent around the mean. Second half mean performance scores post-intervention improved to similar levels of first half performance, and despite there being a number of overlapping data points across the pre- and post-intervention phases, the performances were consistent around the mean score.

Participant three had slightly higher mean performance scores for second half performance compared to first half, pre-intervention. For the post-intervention phase first half performance improved with no overlapping data points to the pre-intervention phase. Second half

Figure 2. Pass completion for first- and second- half performance across competitive games pre- and post-intervention (vertical bar) compared to each participant's average performances

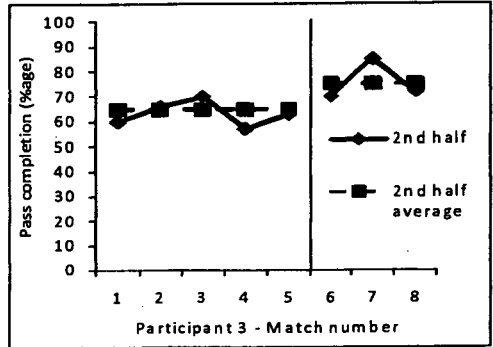
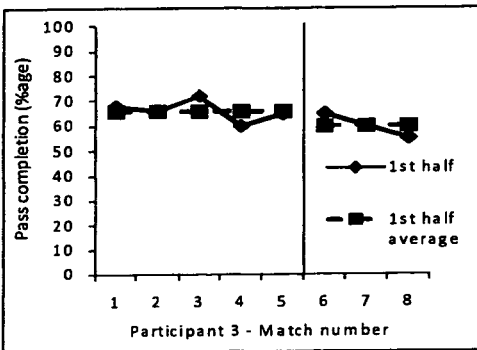
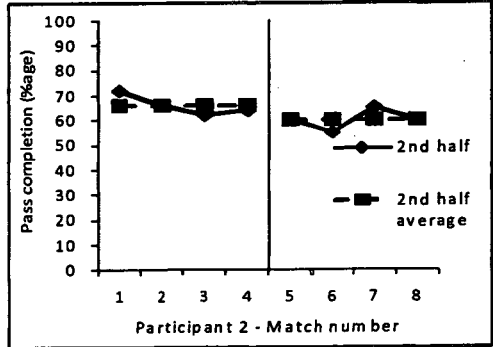
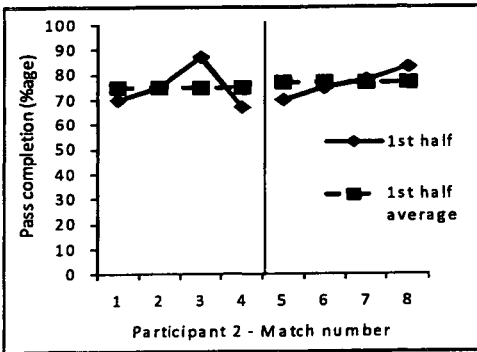
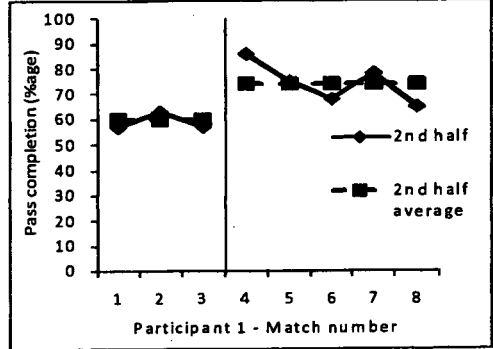
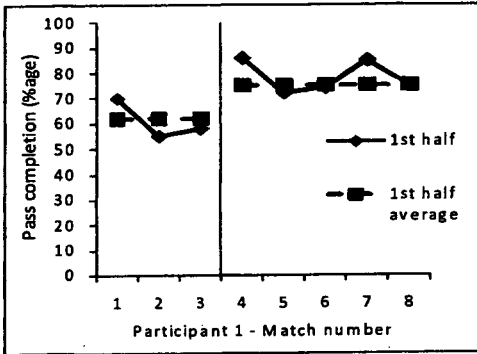
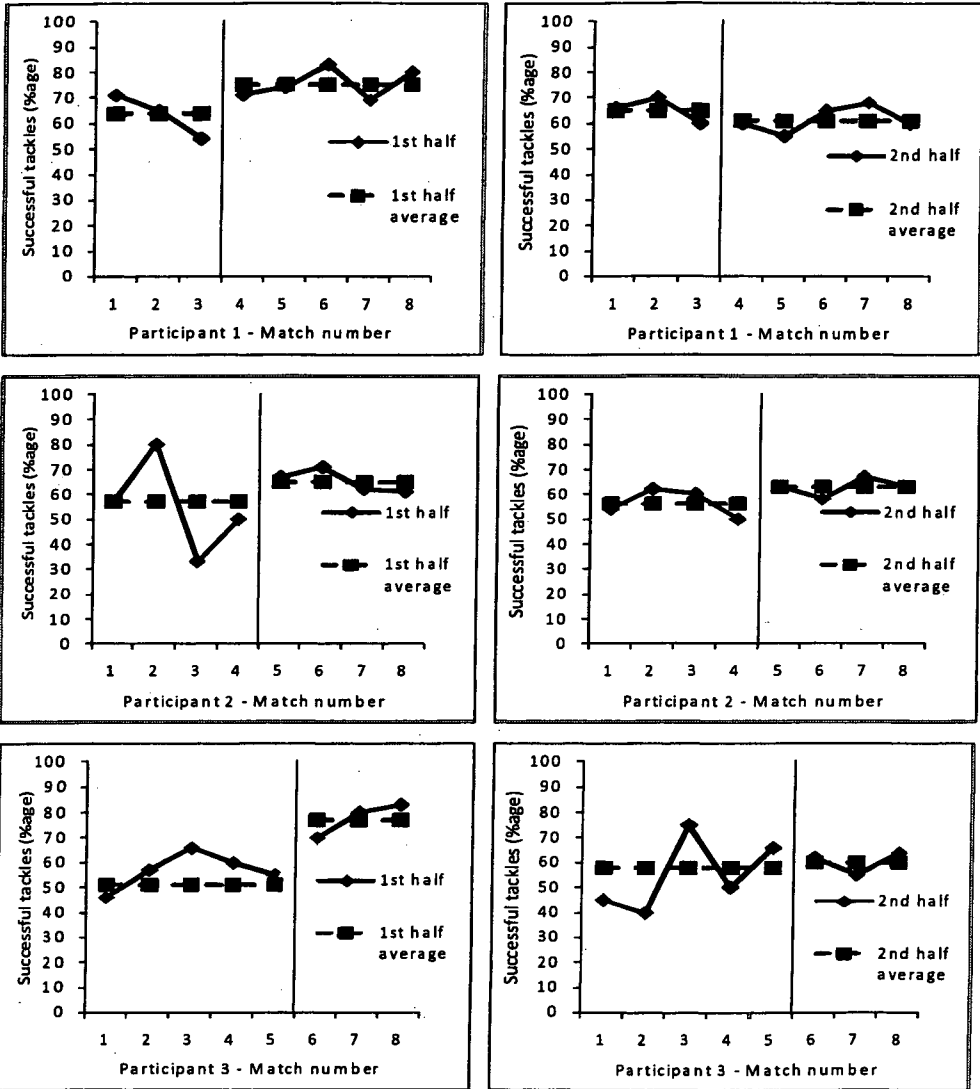


Figure 3. Tackle completion for first- and second-half performances across competitive pre- and post-intervention (vertical bar) compared to each participant's average performances



mean performance remained similar to that achieved pre-intervention. However, despite the lack of improved mean performance, the performances appeared to be more consistent around the mean score.

Social Validation

The social validation data was collected on completion of the data collection period using brief questionnaires. The responses to the social validation questionnaire were generally positive with all participants indicating a performance improvement to be important (average response of 6). Improvements in performance were also perceived to be meaningful by the participants with average responses being 5.9. The social validation data also suggested that participants were satisfied with the psychological skills intervention (5.7), and with an average score of 6.1, the intervention appeared to have been of use to the participants.

Discussion

The main purpose of the present study was to examine the effectiveness of a psychological skills intervention on role-specific performance subcomponents during different stages of competition. In short, the findings reinforce the research advocating the benefits of monitoring performance subcomponents (e.g., Johnson et al., 2004; Thelwell et al., 2006) while also showing that psychological skills could have a role to play in the improvement of performance at differing stages of competition. Specifically, the data indicated participants to improve in at least two of the subcomponents when compared to baseline data in second half performance.

One of the key reasons for the improvements in performance subcomponents may relate to the structure employed for the intervention development. As such, using Taylor's (1995) conceptual model to develop the interventions in a manner that suited the positional requirements may have been of use. In fact, as highlighted within the social validation data, all participants were satisfied with the intervention and they reported it to have been of use. Despite the conceptual approach to intervention development, the researchers acknowledge that although the interventions were developed with the requirements of the position in mind they may not have been totally 'position-specific'. That said, the findings do provide further evidence of the need to base intervention development and delivery on the specific roles within sports and the psychological priorities for such roles.

With this being the first known study to examine the influence of psychological strategies throughout a performance, a range of possible explanations for the varied levels of performance improvement throughout competition can be suggested. First, the performance improvements may have resulted from a change in 'game tempo' (also known as the 'pace of the

game') as the games progressed. Although not measured, it may have been that the games were played at a greater tempo in the first half, where errors in accuracy of performance may have been more noticeable. When in the second half of games, the tempo of play established in the first half may not have been sustainable, possibly due to the onset of fatigue. This may have enabled the participants to focus more specifically on the completion of the positional specific performance subcomponents. The role of the psychological skills here could have been to regulate the participants' awareness of the physical requirements of the game while also enabling them to focus on specific performance subcomponents. This may also enable the participants to focus on their specific role within the team (e.g., playmaker, defensive player) where particular subcomponents would be more important than others. As such, the findings of the present study indicated all participants to improve in two of the performance subcomponents in the second half of performances, post-intervention. This suggests that the skills may have enabled participants to refine their focus, while also being aware of the physical requirements for the stage of performance.

A further explanation for the findings relates to the method of performance measurement. Although an objective scoring approach was adopted for the attainment of data, a number of issues may have influenced the validity of the performance measures. In particular, the objective approach did not allow for uncontrollable variables to be accounted for. An example of this could be where a pass is classified as incomplete due to the intended recipient not anticipating or reading play, even though it was the correct pass to make. The current scoring system would give the pass a negative mark whereas a more subjective approach as used in some previous research (e.g., Maynard, Hemmings, & Warwick-Evans, 1995; Maynard, Smith, & Warwick-Evans, 1995) would award credit for identifying the pass.

A further possible explanation for the findings may be possible from fatigue related research (e.g., McGregor, Nicholas, Lakomy, & Williams, 1999). With fatigue defined as "an increased difficulty in maintaining the work rate" (Nielson & Nybo, 2003, p.2) it may have been that the participants experienced such difficulties towards the latter stages of a performance. As such, the psychological skills may have enabled the participants to cope better with fatigue throughout performance via suppression, or increased their tolerance towards unwanted perceptions of fatigue. Unfortunately, with no data being collected to examine the participant's perceptions of the mechanisms to how the skills were operating, this assertion can only be hypothesized.

Given the range of possible explanations for the findings within the present study of the study, several future research suggestions are proposed. The first relates to the development of decision-making performance. Specifically, while evidence from the motor control literature has reported the influence of incremental exercise of the decision-making ability of performers

(see McMorris & Graydon, 1997; McMorris, Sproule, Draper, & Child, 2000), to date no literature has examined the influence of psychological skills on the decision-making ability of performers at varying levels of exercise. On the assumption that such skills may influence decision-making capability, a wealth of valuable information may then be provided to the applied practitioner, coach and performer. This is especially the case given that the identification of, and executing of correct decisions within co-acting sports such as soccer, are fundamental to the performance of a midfielder and to the team as a whole. Further to this, and bearing in mind the varying environmental conditions in which performers are required to play, there may also be scope for extending the suggestions regarding performance capability at varying levels of exercise, to those in varying climatic environments (e.g., heat, cold, hypoxic). Given that recent studies have reported psychological states to be influenced by varying environmental conditions (e.g., Lane, Terry, Stevens, Barney, & Dinsdale, 2004) and for psychological skills to influence performance in such environments (e.g., Barwood, Thelwell, & Tipton, 2008) such data would provide the practitioner with further information to generate appropriate intervention programs for specific conditions. Finally, given that a range of possible explanations for the findings have been forwarded, it may be that more qualitative forms of investigation are employed to understand psychological skills use throughout performance. Unfortunately, despite the seemingly positive findings within the present study, the data were unable to inform researchers and practitioners to why performance improved post-interventions throughout competition, or how the psychological skills were perceived to have been of use. As such, qualitative approaches would enable such data to be generated which in turn could benefit the development of future sport-specific interventions.

In conclusion, the findings of the present study conclude that performance was aided throughout a game from the employment of psychological skills. The findings suggested participants to increase their performance in the first half of games post-intervention, and more importantly participants improved their performance in at least two of the subcomponents for second half performance following the intervention. Despite the varied explanations for the findings, several potential areas for future research are presented for the applied sport psychologist.

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