Fixation on a Beneficially Aroused Consciousness in the Game Situation, Contingent Upon Hypnosis, in Soccer Players

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Fixation on a Beneficially Aroused Consciousness in the Game Situation, Contingent Upon Hypnosis, in Soccer Players

A Thesis
Presented to the
Department of Counseling and Special Education
and the
Faculty of the Graduate College
University of Nebraska

In Partial Fulfillment
of the Requirements for the Degree
Masters of Arts
University of Nebraska at Omaha

by
James Sanders
May 1985
THESIS ACCEPTANCE

Accepted for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the degree Master of Arts, University of Nebraska at Omaha.

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Date

4-22-85
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This author is grateful to Creighton University and the University of Nebraska at Omaha's 1984 soccer teams along with their coaches Don Klosterman and Peter Kassey-Farkas for their time and involvement as participants in the study.

The author is grateful to Patricia Adams for accomplishing the typing under strict time limits.

Lastly, this author gives special thanks to his family, relatives, dear friends, and roommates who gave support which carried this author through two and a half years of stress, frustration, and tears during completion of this thesis.

This author learned: If you think you can, or if you think you cannot, the answer is evident in the consequences.

Thank you for the opportunity.
Introduction

For centuries athletes have tried to find ways of improving their athletic ability. As recently as 1984, Olympic athletes have used psychological sport hypnosis to improve their potential. This recognized use of hypnosis has spurred public interest and acceptance.

Related Literature

The peak level of sport arousal within the athlete has been determined to be an individual achievement among athletes (Hanin 1978). Manipulation of athletes' sport arousal state has been done by many researchers (Barber, 1966; Bevegard, Arvidsson, Astron, & Johnson, 1968; Evans, & Orne, 1965; Johnson & Kramer, 1961).

The sport arousal state of athletes may be systematically regulated, as in systematic desensitization, to accommodate their athletic situation. Research has indicated that muscular performance can be enhanced by hypnotic suggestions, yet Johnson (1961) concluded that such suggestions cannot be relied upon to be effective because the benefits of hypnosis are contingent upon the participants' willingness to be hypnotized. In the majority of studies statistically significant improvements in performance have been found in athletes who were hypnotized in an effort to increase endurance.

Hypnosis can create either an extremely relaxed state of consciousness or a hyperaroused state. An athlete's level of sport arousal is determined, in part, by attentional focus, self-confidence, fear, or presence of injury. Hypnosis has been utilized in conjunction with systematic desensitization to aid individuals in overcoming fears and phobias, thus adjusting their arousal state for future fearful
situations. Dudley (1964) provides evidence in his research that respiratory and emotional changes accompanying a headache can be reproduced by hypnotic suggestion.

Roush (1951) concluded that hypnosis contributed to the removal of inhibitory strength and endurance. Levitt and Brady (1964) concluded that hypnosis, coupled with motivating suggestions, enhanced muscular performance by athletes. Evans and Orne's (1965) research refutes the hypothesis that susceptible Ss are more highly motivated than unsusceptible Ss.

The most effective hypnotic suggestion is that of failure as opposed to success, yet suggestions for success are also effective. Johnson and Kramer (1969) concluded that motivational suggestions, with or without hypnosis, do not influence metabolic variables but they do have an influence on running times. This finding suggests that belief in one's own performance can be beneficial.

Because the research having to do with sport psychology is scarce and conflicting, in terms of athletic performance manipulated by hypnosis, this research provides evidence regarding the effect of hypnosis on the performance of soccer players. This research contributes to increased understanding of the assumed beneficial sport arousal state that athletes supposedly achieve in a game situation. This beneficially aroused consciousness can be perceived as "being in the groove." Elite runners refer to this as "the runners high" although it does occur differently in all endurance type sports.

Statement of the Problem

The purpose of this research was to systematically regulate the sport arousal state of soccer players. Hypnosis viewed as an alternate state of consciousness was the vehicle to the beneficial sport arousal
state. Once in an hypnotic state, a post hypnotic suggestion was utilized to reproduce that beneficial sport arousal state as players stepped upon the soccer field. The focus was two-fold: First, to determine whether or not a beneficial sport arousal state could be attained within the hypnotic state; and secondly, whether or not a beneficial sport arousal state could be reproduced by post-hypnotic suggestion for a game situation.

Being mentally relaxed during athletic performance is beneficial. Levarlet-Joye (1979) indicated that relaxation has a positive effect on visual reaction time, manual coordination, and strength of small muscle groups.

Hypothesis

There will be no significant difference between the experimental and control groups on:

1. Awareness of the benefits resulting from hypnosis for athletic performance.
2. Levels of sport arousal state resulting from hypnosis for athletic performance.
3. Over-all performance resulting from hypnosis for athletic performance.

Methodology

Participants

The participants (N=22) for the study were twenty-two soccer players comprising the soccer teams for two major colleges located in Omaha, Nebraska. Each team consisted of eleven members. The experimental group (N=11) consisted of soccer players from Creighton University. The control group (N=11) consisted of soccer players from
the University of Nebraska at Omaha.

Instrumentation

Treatment effect was measured by a self-report questionnaire. Three surveys were used (see Appendices A, B, and C). The instruments were developed by the author. The content of the instrument included questions about (1) the players' expectations concerning the effects of hypnosis on athletic performance and (2) the players' and coaches' assessment of players performance after treatment. The author designed three surveys in order (1) to assess the expectations and similarity between the two groups; (2) to get a self report of the players' assessment of their own performance after treatment; and (3) to get the coaches' assessment of the players' performance after treatment. A Likert scale was used because of its high validity and reliability as a self-report rating process.

Design

The Nonequivalent Control Group Design was utilized as specified by Campbell and Stanley (1966). The assignment of treatment was under the experimenter's control. Because groups were intact, this design controlled for the main sources of internal invalidity such as maturation, history, instrumentation, selection and mortality. Because the participants had the experiment partially explained to them before treatment, the external invalidity of (1) Interaction of selection and treatment and (2) Reactive arrangement may have played a part in this study.

Procedure and Treatment

The experimental group was provided information and instructions five weeks before treatment. These instructions included:
Informed Risks
This consisted of informing participants of research showing positive suggestions are, at least, helpful and productive.

Non-Coercive Statement
This consisted of completely informing the participants of what actually happens to them in and out of the hypnotic state.

Release Forms
Release forms, as required by the University of Nebraska Institutional Review Board, were provided and signatures were obtained indicating willingness to follow through with the experiment and waiving all liability of malintent.

Option to Withdraw
The participants were given the opportunity to withdraw at any time.

The experimenter then spoke separately with both groups to explain the overall procedure. Consent forms were signed and the experimenter administered a self report assessment before hypnosis (see Appendix A). All individuals in the experimental group were asked to identify and express to the experimenter what they cognitively and affectively recalled from those times they felt they were fixated on a beneficial sport arousal state of consciousness in a soccer game. Each member of the experimental group (N=11) was then hypnotized for a period of 35-40 minutes. Several studies have found a significant positive correlation between subject trait measures of hypnotic susceptibility and vividness of mental imagery (Farthing, Venturino & Brown, 1982). These findings prompted the use of the following induction techniques:

1. Visual imagery of being on a beach relaxing
2. Sensory progressive relaxation
3. Counting from 20 down for deepening effects

Hypnosis was used only once, and while the participants were in the hypnotic state the experimenter provided positive suggestions and utilized sensory imagery which enabled them to attain that beneficially aroused state of consciousness previously explained to the experimenter. The participants were then given a post-hypnotic suggestion to mentally practice this same treatment on their own before each of the three home games.

The time period between the treatment and the last game was two weeks. All participants were also given the post-hypnotic suggestion that they would reproduce that same beneficial sport arousal state of consciousness as they stepped upon the field at each of the three home games.

**Definition of Terms**

**Fixation** - a state of acute concentration in which both mind and body have a complete attentional focus on a construct (e.g., personal performance).

**Beneficially Aroused Consciousness** - a state in which one is mentally and physically aware of his or her functioning; and, that functional state is at the apex of possible achievement.

**Game Situation** - specified league scheduled game.

**Hypnosis** - a psychophysiological mind set characterized by a complex perceptual capacity for attentive, receptive concentration with parallel awareness (Spiegal 1979).

**Soccer Player** - a member of either Creighton University's or the University of Nebraska at Omaha soccer team.
Instrumentation - a self report questionnaire utilizing a Likert scale response format.

Treatment of Data

The first survey (A), was administered before treatment to identify the participant's expectations and ideation concerning the effects of hypnosis on athletic performance. The second survey (B) was concerned solely with athletic performance. The third survey (C) obtained the coaches' assessment of player performance.

The control group responded to the pretest (A) at the same time as the experimental group, and completed the posttest only after their third home game. The experimental group responded to the pretest once, but completed the posttest (B) after each of three home games. The coach of the experimental group completed an individual player performance survey (see Appendix C) after each of the three home games. The coach of the control group completed posttest (C) only after their third home game.

Because the t-value of the pretest was statistically nonsignificant, the t-test was utilized to check for variance between the means of the posttest of the control and experimental groups. An F-test was utilized to check for regression toward the mean concerning the experimental groups' scores following each of the three home games.

Results

Analysis of Data

Pretest data were analyzed by a t-test of means to determine whether the two groups differed significantly prior to treatment. An obtained t-value of .078, using a level of significance of p < .001, indicated both groups may be assumed to possess equal population
Posttest data (scores following the third game) were then analyzed by a t-test of means. The obtained t-values of 5.640 for soccer players and 6.804 for coaches, again using a significance level of $p<.001$, indicated both players and coaches differed significantly in their perception of performance following treatment. All significant differences were in support of treatment and favor rejecting the null hypothesis. It is to be noted there was one player from the experimental group who did not complete the posttesting because he quit the team. The means, standard deviations, and resulting t-values are presented in Table I.

There were non-significant differences ($p=.05$) between the obtained scores following the three games the experimental group played. These data provide tentative evidence that there is not a significant regression in performance after treatment by hypnosis. Neither did game scores have a statistically significant effect on how the experimental group rated themselves. These data are presented in Table 2.

**Hypotheses Reviewed**

The original hypotheses formulated suggested no significant differences would exist between the two groups. Pretest data prior to treatment revealed the groups to not differ significantly in terms of population variance. However, posttest data obtained from players and coaches did reveal significant differences following treatment. Therefore, the following alternate hypotheses are accepted:

Hypnotic treatment will contribute to significantly different mean scores for the experimental and control groups following treatment on:
Table I

Pretest and Posttest Data For Soccer Players and Coaches

<table>
<thead>
<tr>
<th>Participants</th>
<th>Pretest</th>
<th>Posttest</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Creighton University Players</td>
<td>11</td>
<td>3.88</td>
<td>.68</td>
</tr>
<tr>
<td>University of Nebraska at Omaha Players</td>
<td>11</td>
<td>3.86</td>
<td>.40</td>
</tr>
<tr>
<td>Creighton University Coach</td>
<td>1</td>
<td>23.90</td>
<td>1.449</td>
</tr>
<tr>
<td>University of Nebraska at Omaha Coach</td>
<td>1</td>
<td>18.27</td>
<td>2.284</td>
</tr>
</tbody>
</table>

*P < .001
Table II

Analysis of Variance on Data Obtained Following Each of Three Home Games

<table>
<thead>
<tr>
<th>Participants</th>
<th>Mean Scores</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Game 1</td>
<td>Game 2</td>
<td>Game 3</td>
<td></td>
</tr>
<tr>
<td>Experimental Group (N=10)</td>
<td>3.913</td>
<td>3.500</td>
<td>3.366</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of squares</th>
<th>Degrees of freedom</th>
<th>Variance estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>362.870</td>
<td>2</td>
<td>181.435</td>
</tr>
<tr>
<td>Within</td>
<td>2617</td>
<td>27</td>
<td>96.926</td>
</tr>
<tr>
<td>Total</td>
<td>2979.87</td>
<td>29</td>
<td>F=1.872</td>
</tr>
</tbody>
</table>
1. Awareness of the benefits resulting from hypnosis for athletic performance.
2. Level of a sport arousal state resulting from hypnosis for athletic performance.
3. Over-all performance resulting from hypnosis for athletic performance.

Therefore, the null hypothesis was rejected.

Discussion of Findings

The paucity of reported research dealing specifically with hypnosis and athletic performance prompted this investigation. The design of this research utilized intact groups, an author-designed questionnaire, subjective responses by participants along with coach's assessment of player performance. The findings overwhelmingly supported the effectiveness of treatment which was designed to enable soccer players to attain peak performance through hypnosis and post hypnotic suggestion.

While the pretest-posttest control group design provides for control of sources of internal invalidity, external sources of invalidity are still possible cause for concern. For example, the interaction of testing and treatment may well produce a false positive. That is to say, the experimental group may have been unduly influenced by the perpetual cognitive restructuring which possibly accompanies the hypnotic process.

Additionally, it is conceivable that some interaction effect of selection and treatment influenced the findings. It is to be noted that each participating soccer team was willing to cooperate in the investigation. These were the only two teams contacted and their
willingness to be involved may have been a factor in the outcome.

Other possible sources of external invalidity include the fact that the experiment was conducted during the soccer season. The same response to treatment may or may not be found under other conditions. Also, while unavoidable, the participants were aware they were participating in a study. This "up-for-inspection" attitude is a qualifier regarding the effect of the treatment on performance. Finally, hypnosis, being perhaps an out-of-the-ordinary treatment, could possibly influence the connection between experimental treatment and posttest content.

These considerations do not negate the findings but are considerations which command attention when the results are noted. Likewise, further research may want to consider methodological strategies which guard against such possible external contaminants.

Conclusions

This research provides evidence that:

1. A beneficial sport arousal state can be achieved by hypnosis and can be reproduced by post hypnotic suggestion in a soccer game.

2. The effect of a reproduced beneficial sport arousal state is enhanced performance in a soccer game.

3. The belief or expectation that hypnosis will enhance overall performance is proportional to the extent that hypnosis enhances over-all performance in a soccer game.

4. The use of post-hypnotic suggestion for the enhancement of athletic performance has no regressive effect over a period of three soccer games.
5. Hypnotic suggestions of increased or improved confidence, motivation, relaxation, attitude, and concentration contribute to athletic performance during a soccer game.

**Suggestions For Further Research**

Several possibilities for future research exist. It is recommended that additional research with soccer players utilize random assignment of players to experimental and control groups. In this study the intact groups were used and treatment was randomly assigned and under the control of the investigator. True randomization, however, would help control for history, maturation, selection, and various interactions, and reactive arrangements.

Another suggestion is that research be designed which provides for different hypnotic techniques and practitioners. Practitioner style and techniques may be variables which would have a significant impact upon performance in general. This study was limited to one practitioner who utilized one hypnotic procedure once with each member of the experimental group.

It is suggested that the effects of regression toward the mean should be tested for in both the experimental and the control group in an attempt to improve reliability.

Finally, it is recommended that a study be done assessing the differences between the effect of suggestions with hypnosis, and suggestions alone, with soccer players. This would provide information concerning the effects of the hypnotic state, compared to the use of suggestion only during the waking state.
Summary

The purpose of this investigation was to determine if a soccer player could fixate on a beneficially aroused consciousness in a game situation utilizing hypnosis as the treatment variable.

Two major college soccer teams were identified as the participants for the study. Creighton University (N=11) and the University of Nebraska at Omaha (N=11) soccer teams were the experimental and control groups respectively.

The experimenter spoke separately with both groups to explain the overall procedure. A pretest was given to test for variance between the two groups. Each member in the experimental group was hypnotized individually. A beneficial sport arousal state, as the individual has explained it initially to the experimenter, was experienced while in the hypnotic state. A post hypnotic suggestion was utilized to enable players to reproduce that same beneficial sport arousal state as they stepped upon the playing field.

The experimental group responded to the self report assessment after each of the three games. The control group players responded after the third game only. The experimental group demonstrated a statistically significant self-assessed improvement in athletic performance as compared to the control group (p < .001). The head coaches of both teams assessed the player's performance. This assessment indicated a statistically significant improvement in athletic performance in favor of the experimental team.

The Nonequivalent Control Group Design was utilized as specified by Campbell and Stanley (1966). The t-test was used to analyze the variance between the means of the pretest scores of both teams, as well
as the variance between the means of the posttest scores. The F-test was used to analyze the variance between the three game scores of the experimental group.

This study supports the benefits of utilizing hypnosis to fixate on a beneficial sport arousal state of consciousness in the game situation with soccer players. It demonstrates how hypnosis contributes to the enhancement of overall performance in soccer players. Furthermore, soccer players were able to reproduce the beneficial sport arousal state of consciousness, as they stepped upon the soccer field, by use of post hypnotic suggestion.
References


Appendix A

Self Report Assessment Before Hypnosis

Respond to each statement honestly. Circle the number which best describes your attitude. The response scale ranges from total disagreement with the statement (1) to total agreement with the statement (5).

1. I want to be hypnotized.
   1  2  3  4  5

2. I am aware of the benefits of hypnosis as an enhancement to performance.
   1  2  3  4  5

3. I expect to reach a more perfect sport arousal state during hypnosis.
   1  2  3  4  5

4. I think it would be possible to reproduce that same arousal state as I step onto the field.
   1  2  3  4  5

5. I think hypnosis would improve my attentional focus during a game.
   1  2  3  4  5

6. I think hypnosis would improve coordination during a game.
   1  2  3  4  5
7. I think hypnosis would improve my motivation during a game. 
   1 2 3 4 5
8. I think hypnosis would improve my attitude during a game. 
   1 2 3 4 5
9. I think hypnosis would improve my ability to relax during a game. 
   1 2 3 4 5
10. I think hypnosis would improve my ability to pass well during a game. 
    1 2 3 4 5
11. I think hypnosis would improve my ability to shoot the ball on goal more accurately during a game. 
    1 2 3 4 5
12. I think hypnosis would improve my ability to play more aggressively during a game. 
    1 2 3 4 5
13. I think hypnosis would improve my ability to concentrate during a game. 
    1 2 3 4 5
14. I think hypnosis would improve my endurance during a game. 
    1 2 3 4 5
15. I think hypnosis would improve my quickness during a game. 
    1 2 3 4 5
16. I think hypnosis would improve my flexibility during a game. 
    1 2 3 4 5
17. I think hypnosis would improve my ability to enjoy myself during a game.
   1 2 3 4 5

18. I think hypnosis would improve my self confidence during a game.
   1 2 3 4 5

19. I think the hypnotically induced sport arousal state would contribute to a better over-all performance.
   1 2 3 4 5

20. I think hypnosis would improve other areas of my life.
   1 2 3 4 5
Appendix B

**Personal Performance Assessment**

Respond to each statement honestly. Circle the number which best describes your attitude. The response scale ranges from total disagreement with the statement (1), to total agreement with the statement (5).

1. My answers on this assessment will only reflect my own personal performance without concern of the outcome of the game.
   
   Strongly disagree 1 2 3 4 5 Strongly agree

2. I had better attentional focus during the game.
   
   Strongly disagree 1 2 3 4 5 Strongly agree

3. I had better coordination during the game.
   
   Strongly disagree 1 2 3 4 5 Strongly agree

4. I was not more motivated during this game.
   
   Strongly disagree 1 2 3 4 5 Strongly agree

5. I had a better attitude during this game.
   
   Strongly disagree 1 2 3 4 5 Strongly agree

6. I did not pass the ball more accurately.
   
   Strongly disagree 1 2 3 4 5 Strongly agree

7. I was not relaxed during this game.
   
   Strongly disagree 1 2 3 4 5 Strongly agree
8. My sense of timing with the ball was better this game.
   Strongly disagree 1 2 3 4 5  Strongly agree
9. I was not aggressive as usual during this game.
   Strongly disagree 1 2 3 4 5  Strongly agree
10. My concentration improved during this game.
    Strongly disagree 1 2 3 4 5  Strongly agree
11. I did not have more endurance during this game.
    Strongly disagree 1 2 3 4 5  Strongly agree
12. I was more flexible during this game.
    Strongly disagree 1 2 3 4 5  Strongly agree
13. I was not as quick as usual during this game.
    Strongly disagree 1 2 3 4 5  Strongly agree
14. I enjoyed myself more during this game.
    Strongly disagree 1 2 3 4 5  Strongly agree
15. I was not more confident during this game.
    Strongly disagree 1 2 3 4 5  Strongly agree
16. I believe my over-all performance has improved.
    Strongly disagree 1 2 3 4 5  Strongly agree
Appendix C

Coachés' Player Performance Survey

Respond to each item honestly. Circle the number which best describes your perception of each player's performance in the specified area. The response scale ranges from low with the statement (1) to high with the statement (5). Your answer should reflect the individual's performance in this game as relative to earlier performance before the treatment of hypnosis.

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Player 1</th>
<th>Low</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td></td>
<td>Low</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>High</td>
</tr>
<tr>
<td>Attentional Focus on game</td>
<td></td>
<td>Low</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>High</td>
</tr>
<tr>
<td>Endurance</td>
<td></td>
<td>Low</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>High</td>
</tr>
<tr>
<td>Overall performance</td>
<td></td>
<td>Low</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>High</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Player 2</th>
<th>Low</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td></td>
<td>Low</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>High</td>
</tr>
<tr>
<td>Attentional Focus on game</td>
<td></td>
<td>Low</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>High</td>
</tr>
<tr>
<td>Endurance</td>
<td></td>
<td>Low</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>High</td>
</tr>
</tbody>
</table>
Player 2 (continued)

<table>
<thead>
<tr>
<th>Overall performance</th>
<th>Low 1 2 3 4 5 High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td></td>
</tr>
<tr>
<td>Player 3</td>
<td>Low 1 2 3 4 5 High</td>
</tr>
<tr>
<td>Motivation</td>
<td></td>
</tr>
<tr>
<td>Low 1 2 3 4 5 High</td>
<td></td>
</tr>
<tr>
<td>Attentional Focus on game</td>
<td>Low 1 2 3 4 5 High</td>
</tr>
<tr>
<td>Endurance</td>
<td></td>
</tr>
<tr>
<td>Low 1 2 3 4 5 High</td>
<td></td>
</tr>
<tr>
<td>Overall performance</td>
<td>Low 1 2 3 4 5 High</td>
</tr>
</tbody>
</table>

| Attitude            |                     |
| Player 4            | Low 1 2 3 4 5 High  |
| Motivation          |                     |
| Low 1 2 3 4 5 High  |                     |
| Attentional Focus on game | Low 1 2 3 4 5 High |
| Endurance           |                     |
| Low 1 2 3 4 5 High  |                     |
| Overall performance | Low 1 2 3 4 5 High  |

| Attitude            |                     |
| Player 5            | Low 1 2 3 4 5 High  |
| Motivation          |                     |
|                     |                     |


Player 5 (continued)

Low  1  2  3  4  5  High

Attentional Focus on game
Low  1  2  3  4  5  High

Endurance
Low  1  2  3  4  5  High

Overall performance
Low  1  2  3  4  5  High

Attitude

Player 6
Low  1  2  3  4  5  High

Motivation
Low  1  2  3  4  5  High

Attentional Focus on game
Low  1  2  3  4  5  High

Endurance
Low  1  2  3  4  5  High

Overall performance
Low  1  2  3  4  5  High

Attitude

Player 7
Low  1  2  3  4  5  High

Motivation
Low  1  2  3  4  5  High

Attentional Focus on game
Low  1  2  3  4  5  High

Endurance
Low  1  2  3  4  5  High

Overall performance
Player 7 (continued)

<table>
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Player 8

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Player 9

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Player 10

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