

## Effects of Rational Emotive Behaviour Therapy and Positive Self-Talk on outcomes of Kicks from Penalty Mark among University Football Players in Southwest Nigeria

By Oluwafemi Paul Olaoye\*, Andrew Olu Fadoju<sup>±</sup>,  
Folasade Racheal Airebamen<sup>•</sup> & Atolani Bose Duyilemi<sup>°</sup>

*Kicks from penalty mark are tie breakers, used in football matches where a winner must emerge. Reports have shown that many university football players have the belief that the outcomes of kicks from penalty mark are based on luck rather than skills. Previous studies have focused more on physiological factors, influencing positive kicks from penalty mark, than on psychological interventions. Therefore, the study was carried out to determine the effects of REBT and PSt on outcomes of kicks from penalty mark among university football players in Southwest Nigeria. A pretest-posttest control group quasi-experimental design, with a 3x3x2 factorial matrix was used. Multistage sampling procedure was adopted. Participants were drawn from first generation federal universities in Southwest Nigeria. Shortened General Attitude and belief Scale ( $\alpha=0.76$ ) was used to screen and select participants in the team list of male football players. The universities were randomly assigned to REBT (11), PSt (11) and Control (11) groups. The instruments used were Belief in Penalty Kicks Outcome Questionnaire ( $\alpha=0.82$ ), Penalty Shooting Skill Test ( $\alpha=0.89$ ) and intervention guides. The data were analyzed, using descriptive statistics, Analysis of covariance, Estimation and Scheffe post hoc at 0.05 level of significance. There was a significant main effect of treatment on outcomes of kicks from penalty mark among the players ( $F(2; 33) = 7.23$ ;  $\text{partial}\eta^2=0.49$ ). The participants in the REBT group had the highest post mean score (7.26), followed by those in PSt (5.45) and control (3.47) groups. There was a significant interaction effect of treatment and playing experience ( $F(2; 33) = 5.15$ ;  $\text{partial}\eta^2=0.41$ ). The players with long playing experience in REBT group had a higher mean score (5.74) than those with short playing experience (4.90). Rational Emotive Behaviour Therapy improved kicks from penalty mark than Positive Self-talk among the participants. Therefore, these therapies should be used as psychological interventions for football players for better outcomes of kicks from penalty mark.*

**Keywords:** Rational emotive behaviour therapy, Positive self-talk, Kicks from penalty mark, University football players

---

\*Department of Physical Sciences, BUHS, Babcock University, Nigeria.

<sup>±</sup>Department of Human Kinetics, University of Ibadan, Nigeria.

<sup>•</sup>Department of Psychology, Counseling, and Behavioral Health, Coppin State University, USA.

<sup>°</sup>Department of Human Kinetics, Olabisi Onabanjo University, Ago-Iwoye, Ogun State, Nigeria.

## Introduction

Kicks from penalty mark, presumed anxiety filled skills, are crucial part of football tournaments. They are frequently used in major football competitions for decision making, particularly when it is mandatory for a team to emerge as winner. At this stage, expressions of anxiety and uncertainties are often observed among players, coaches, spectators and other sport enthusiasts because unpredictable outcomes of kicks from penalty are associated with feelings of apprehension among them. According to Greg, Geir and Mark (2015), kicks from penalty mark outcomes are frequently acclaimed as a “lottery”, attributing luck rather than skills level of the players as determinant of its outcomes. The assertion of the probability of kicks from penalty mark being dependent on luck justifies the reason many great and elite football players have suffered the misfortune of missing in international football competitions. Loss of kicks from penalty mark is not only peculiar to elite football players, it is also common among university football players. In the 25th edition of sports competition organized by Nigeria Universities Games Association (NUGA), held at University of Agriculture, Markurdi, Abubakar Tafawa Balewa University (ATBU) engaged hard-fighting Lagos State University (LASU) in kicks from the penalty mark in one of the knock-out group stages of the competition. Lagos State University was rated a better side, but ATBU defeated LASU by 4-2 on penalties. The celebration of victory often expressed by players, fans and coaches when their team wins from favorable results of penalty kicks than the satisfaction they display when the team wins after regulations time, coupled with the expression of greater feelings of disappointment of the losing team, compared to when they lose as a result of poor performance within regulation time, establishes the uncertainties of outcomes of kicks from penalty mark among them. The perception of the probability of these kicks being unpredictable has made many football players to view it as a lottery venture or an outcome of luck. This assertion can be attributed to some evidences of elimination or loss of stronger football teams at major decisive national and international football tournaments. The impression that outcomes of kicks from penalty mark are dependent on luck could decrease players’ ability of being in control of perceived thoughts, thereby heightening anxiety and mediating negatively on performance behaviour of penalty kickers. Olaoye & Fadoju (2021), asserted that it may not be logical to arrive at the conclusion that outcomes of kicks from penalty mark are dependent on luck, because it may erroneously imply that all players who converted their penalty kicks were lucky. Although, players often experience choking when they are included in decisive penalty kicks, but the belief that its outcome is based on luck could become a major stressor for the kickers. Findings from researches conducted on kicks from penalty mark have shown corresponding effects of anxiety on performance outcome of players. Jordet, Hartman, Visscher and Lemmink (2007) examined 400 kicks from penalties held during major tournaments. Findings from their examination showed that the team who knew that their last attempt, if missed, would instantly result to loss of the competition scored 60% of their penalty kicks, while the team who knew that a score in their last attempt would result to a win converted 92%. This corroborates the effect of pressure exhibited by a penalty kicker when a miss will result to loss of competition, and optimism expressed when

a successful conversion of the last attempt would result to a win. Therefore, lack of psychological coping resources and its application in stressful situations, underscores the reason football players experience choking under pressure and lose in penalty kicks. According to Jordet, Hartman, Visscher and Lemmink (2007), kicks from penalty mark is one of very few occasions in a predominantly fast-moving team sport where players are under individual scrutiny and have sufficient time to think about the consequences of failure. The period between the end of extra time and when penalty commences is a crucial moment when players are found to be more anxious, stressed and tensed up as a result inadequate or lack of psychological coping strategies with absence of emotional coordination (Jordet & Elferink, 2012). Consequently, penalty kickers may not have the opportunity to physically rehearse shooting drills when kicks from penalty mark are used for breaking a tie. However, they can have a mental picture on how to get desired results. Therefore, it can be inferred that the coping resources a penalty kicker requires before performance are more psychological than being physical (Olaoye, 2022). The possibility of determining the outcomes of kicks from penalty mark could be anchored on relevant psychological preparations. Psychological skills training that will strengthen thought patterns and reduce feelings of uncertainties associated with outcomes of penalty kicks for sustained perception of control towards the realization of desired results among penalty kickers should be prioritized. These should be structured and designed within the confines of psychological experiences players are likely to be exposed to during every stage of kicks from penalty mark, for enhancement of their control over the outcomes of their penalty kicks, rather than the outcomes being based on luck. Consequently, mental practice such as Rational Emotive Behaviour Therapy (REBT), Positive Self-talk (PSt) and some penalty training strategies could improve performance outcomes of penalty kickers

Rational Emotive Behaviour therapy (REBT) is a cognitive based behavioural therapeutic intervention that can reduce anxiety and increase perception of control of athletes. (Ellis, Albert, & Dryden, 2007). It is a cognitive behavioural guidance technique which is predicated on the premise that the beliefs people have in connection to the disappointments they experience could negatively mediate on their perceptions of thoughts and emotional responses. It is an effective treatment method for reducing severe motives and behaviour (Spencer, 2005). REBT is an eminent psychological provision, associated with two core principles (MacInnes, 2004). It proposes that emotional concerns and disturbances are caused by some specific irrational beliefs people have about something, and that emotional well-being and psychological wellness of individuals are preceded by certain rational beliefs (for example, preferences, anti-awfulising, self-other, or world-acceptance) and or high-frustration tolerance. Ellis (2003), asserted that one of the main pillars of Rational Emotive Behaviour Therapy is that irrational patterns of thinking, feeling and behaving are the cause of much human disturbance, including depression and anxiety. REBTs central premise is that events alone do not cause a person to feel depressed, enraged, or highly anxious. Rather, it is one's beliefs about the events which contribute to unhealthy feelings and self-defeating behaviour (Ellis, 2003). According to Ekechukwu and Onyekuru (2014), Rational Emotive Behaviour Therapy may be used to reduce aggression, depression and other emotional

maladjustment problems. REBT has been found to be applicable and effective in treating emotional challenges. Rational emotive behaviour Therapists strongly believe in the rules of logic, cognition, and scientific method application to daily routines (Ellis, 2003). REBT attempts to move towards psychological training, focusing on skills such as the identification, criticism and substitution of inefficient beliefs and in so doing, it makes use of cognitive, emotive, mental imaging, behavioural and systemic skills (Thompson & Brown, 2007). Its central mechanism is basically for conversion of irrational beliefs to rational ones, through a well patterned ABCDE therapeutic model (Ellis, 2003). The framework is just to identify irrational beliefs, called (B), by unveiling the reason(s) a certain event at (A) brings about unhealthy emotions and behaviour, called (C), a core element of REBT. When the ABC chain is identified, these irrational beliefs are dispelled or disputed at (D). The D is thereafter replaced with rational beliefs, leading to healthy and more acceptable emotions and behaviour, called (E), thereby yielding to new rationale philosophical dispositions. The focus of REBT is that reduction in irrational beliefs can lead to reduction in negative emotional and behavioural dysfunctions.

Also, Positive Self-talk, a related talking psychological intervention which helps to regulate thought patterns and inner discussions with self, for positive prediction of action could be helpful. According to Yasnitsky, Van der Veer, & Ferrari (2014), the capability for internal dialogue or statement is important for productive and independent thoughts. Self-talk, a special area in the field of sports psychology was not embraced in research discuss until researchers started to examine avenues where athletes' thoughts had influences on their motor skills related activities (Williams & Straub, 2006). Self-talk occurs when an individual intrinsically or extrinsically makes a position about something, whether verbal or non-verbal, which is directly or indirectly connected to his feelings, thoughts or actions. It is described as the key to cognitive control and it is usually referred to internal dialogue, including thought content and self-statements (Hardy, Jones & Gould, 1996). Therefore, self-talk can be positive or negative. If it is positive, it enhances optimism and prevents players from internal competitive distractions. It can tell an athlete what to do, where to focus, and get him motivated. Positive Self-talk directs an athlete's attention towards enhancing self-esteem, motivation, attentional focus and performance, whereas negative self- talk can increase anxiety, reduce reinforcement and generate a counterproductive outcome (Hardy & Hall, 2006). This implies that a player's inner feelings, thoughts and outcome of inner dialogue have influence on his overall performance output. Consequently, his decisions and actions will have corresponding effects on his performance outcome. Positive self-talk is an internal and personal consultation a player uses for sustenance of concentration and attention on the task at hand. It is a psychological construct that helps to regulate thoughts, as well as verbal and non-verbal conclusion of an athlete during performance, especially in stressful situations. Psychological skills acquisition, could be influenced by a number of factors. Research findings have established the influence of age, playing positions and experience of penalty kickers on outcomes of kicks from penalty mark. Jordet (2009), established this assertion when he analyzed and compared the rates of conversion of penalty kicks of players who had achieved remarkable feats in world football history, and players who were striving to become potential future

players at the time of their involvement in penalty kicks. From his findings, elite players successfully converted only 65% of their kicks from penalty mark, potential future players converted 73.6% while those who never won any medals in their football career were 88.9% successful. It could be inferred that the upcoming stars were more successful because a high level of anxiety they probably experienced from penalty kicks was perceived in their judgement as an avenue to prove their worth. For players' playing position, Jordet et al (2007), concluded in their findings when they examined different playing position with corresponding conversion rates of their penalty kicks. They hypothesized that Attackers converted 83.2% of their penalty kicks, midfielders converted 79.7% and defensive players converted 73.7%. According to them, the effect of the duration of time the players were on the pitch was considered. They opinionated from their observations that players who had played for 30 minutes or less, converted 86.7% of their penalty kicks. Also, those who played between 31 and 90 minutes converted 81.9% of their penalty kicks, and players who play longer than 91 minutes, converted 80% of their chances. However, their findings did not report psychological status of the player. However, if internal verbal or non-verbal deliberations are included as part of mental trainings, it will be useful in reducing performance stress of being included in kicks from penalty mark among football players, irrespective of their playing positions, experience or age.

### **Rationale for the Study**

Kicks from penalty mark, acclaimed anxiety prone skills are crucial part of football tournaments, used for breaking a tie, especially when it is mandatory for a team to emerge as winner. Before and during this anxiety motivated tie breaker is enforced, expressions of nervousness and curiosity are often elicited by players. Some football players prefer being included in penalty kicks awarded within regulation time, but may prefer being excluded in decisive kicks from penalty mark. This is because penalty kicks played within regulation time may not determine the outcome of the competition. Consequently, the level of anxiousness players experience when included in decisive kicks from penalty mark is higher than when they are to play penalty kicks within regulation time. Prior to this study, a preliminary investigation was carried out by the researchers among football players who took part in Nigeria Private University Games (NPUGA) to investigate their perception on outcomes of kicks from penalty mark. The findings indicated that 93% of the players believed that its outcome is absolutely uncertain, and dependent on luck with presumed feelings of associated competitive anxiety while 89% of the respondents preferred to be excluded from decisive kicks from penalty mark. Coaches, supporters and fans are also anxious when it is enforced when their teams are involved, because its outcome is perceived to be uncertain. In some instances, supporters and fans at the stadium and those following the involvement of their teams in decisive kicks from penalty mark through mass media had moved away from the scene of the tie breaker. This is because they could not withstand the pressure of watching their teams being eliminated. In national and international football competitions, stronger and better teams according to observations and

match statistics at the end of regulation time have lost to opposing teams. Also, highly rated and physically skillful players who displayed striking competence in terms of goals scoring within regulation time have lost in kicks from penalty mark. The interval between the end of a football match and when penalty is to be enforced to break a tie is very short. Therefore, it will be very difficult for football players to create time for physical skills training when they are included in decisive kicks from the penalty mark. However, their psychological endowments and coping abilities will be put to test. This implies that the coping resources a penalty kicker requires are more psychological than being physical. Therefore, the impression that outcomes of kicks from penalty mark are dependent on luck is irrational. This impression can increase anxiety above optimal level, thereby causing self-defeating behaviour and negative self-talk which could lead to negative performance outcome. Psychological skills trainings that can help reduce tension; excessive cognitive and competitive state anxiety could be helpful. There is need to bridge the gap between physical and psychological trainings in preparation for decisive kicks from penalty mark for better outcomes. The researchers' intention was to bridge this gap, thereby investigating the effects of Rational Emotive Behaviour Therapy and Positive Self-talk as psychological interventions on penalty kickers to determine the outcomes of kicks from penalty mark among university football players.

## **Method**

A pretest-posttest control group quasi experimental research design was used for the study. Population for the study comprised all registered male football players in the first-generation Federal universities (University of Ibadan, University of Lagos and Obafemi Awolowo University) in Southwest Nigeria.

Multistage sampling technique was used for selection process of the participants for the study. Firstly, all first-generation Federal universities in Southwest Nigeria were identified. The football teams of participating universities were also determined through their various sports councils. Secondly, all players who took part in the study were screened. After the screening, all the participants were qualified, and they had equal chance of being selected for the study. In the third phase, purposive sampling technique was used to select eleven (11) players, who were considered as the best in each of the teams. Therefore, participants for the study comprised thirty-three (33) male university football players who took part in the football competitions, organized for the pre and posttest kicks from penalty mark.

## **Instrumentation**

### **Shortened General Attitude and Belief Scale (SGABS)**

Shortened General Attitude and Belief Scale (SGABS) was used to assess irrational thoughts and beliefs of the participants about the outcome of kicks from penalty mark. It was used to screen the participants, before being included in the

study. Cronbach's alpha was used for re-validation of the instrument and a significant value of 0.76 was obtained.

### **Believe in Penalty Kicks Outcome Questionnaire (BPKOQ)**

Believe in Penalty Kicks Outcome Questionnaire (BPKOQ), a self-developed instrument was administered to generate data on players' perceptions and believe about the outcomes of kicks from penalty mark. It was subjected to Cronbach's Alpha reliability test, with a validity value of 0.82.

### **Penalty Shooting Skill Test (PSST)**

Penalty shooting skill test (PSST), a validated measuring instrument was designed to evaluate penalty shooting skills of the participants. It was used to assess and record the outcomes of the participants' penalty shots. The instrument was validated, using university football team different from the actual study participants, with a reliability value of 0.89.

### **PSST Measurement**

A player scores;

- a) 10 points for kicks that cross the goal line, travelling from foot to top corners of goal post in the air. This included shots targeted above 1.90m (in height) from the ground and within 1.50m to the extreme of the upright of the goal post.
- b) 7 points for kicks that cross the goal line above 1.20m (in height) from the ground, but below 1.90m and within 1.50m to the extreme of the upright of the goal post.
- c) 5 points for kicks that cross the goal line above 0.5m (in height) from the ground, but below 1.20m and within 1.50m to the extreme of the upright of the goal post
- d) 3 points for any goal scored from kicks that enters the goal posts, different from (a), (b) and (c) above.
- e) 1 point for any kick that touches the ground or the goalkeeper before crossing the goal line, to enter the goal post.
- f) Zero point for a missed kick.

### **Procedure**

**Setup:** Penalty area and full-size goal post with nets, on a regulation field with a ball at the spot of the penalty mark.

**Test:** Participants start at the penalty spot. A whistle is blown to signify when the player kicks. After the whistle is blown, the penalty kicker moves towards the ball, and makes an attempt to kick it across the goal line in between the goal posts.

### **Facilities and Equipment for Shooting Test**

The following facilities and equipment were used; football field, goal post, net, balls, whistle, measuring tape, sellotape, training cones, recording sheets, pen, marker, ropes and paint.

### **Intervention Guides**

#### **1 Rational Emotive Behaviour Therapy (REBT)**

Rational Emotive Behaviour Therapy (REBT) is a thought redirection and irrational beliefs disputing therapy that could reduce stress or overreaction of athletes to task at hand.

#### **2 Positive Self-talk (PSt)**

Positive Self-talk is a psychological construct, used to jettison self-doubt or negative thinking that may elicit negative inner response to stressful situations, thereby using appropriate word to trigger desired outcomes, and initiate optimistic actions during decisive kicks from the penalty mark. REBT and PSt training packages were administered at the stadium of participating universities.

### **Procedure for Data Collection**

The researchers sought permission from the Sports Councils and coaches of participating universities on the rationale and objectives for the study, criteria for inclusion of participants, procedure and methods of administering assessment and interventions for data generation. In addition, the researchers solicited for the cooperation of the participants. They all gave consent and documented their readiness to take part in the study.

A Shortened General Attitude and Belief Scale (SGABS) instrument was used to assess the irrational thoughts and beliefs of the participants in a given task such as kicks from penalty mark. A total irrationality score was obtained, by adding together the scores from the irrationality subscales only. Higher scores indicated stronger irrational beliefs. It was administered to all participants at the football pitch of the participating universities by the researchers and four research assistants. Copies of the instrument were collected. And data collated were used to select the participants who scored at least, 65 points and above. All the participants were qualified to take part, and had equal chance of being included in the study/ However, those who took part in the study were identified as the best players by their Coaches. Also, Believe in Penalty Kicks Outcome Questionnaire (BPKOQ) was used to answer research questions.



The three participating universities were randomly assigned to two experimental and control groups. Participants in the two experimental and control groups were made to engage opposing football teams in kicks from penalty mark at the football pitches of the participating universities to create a competitive and anxiety motivated environment. The goal posts were calibrated from 0-10 points. Each participant played one kick from the penalty mark of the football pitch. The target point(s) of the participants' penalty kicks were immediately recorded by the researchers and assistants on Penalty Shooting Skill test score sheets, to generate baseline data.

Treatment packages for eight weeks on REBT and PSt were given to the experimental groups. The participants of the two experimental groups, the older university being the host, engaged each other in decisive kicks from penalty mark for posttest scores, while a posttest penalty kicks with an opposing football team was also organized for the control group. In ensuring consistency of data collection, the participants whose pre-test scores were recorded were the same players whose post intervention data were obtained, according to the arrangement of the researchers with the coaches in all the groups. They were identified through their jersey numbers and names.

Also, all goals scored within the regulation time were set aside, in accordance with the terms of the study. The posttest data were recorded immediately on the Penalty Shooting Skill Test score sheets. The difference between pretest and posttest penalty kicks scores for the groups were compared to determine significant effects of treatments on experimental groups and whether changes took place in the control group.

Data generated were from 33 players who took part in the study. 11 players were in experimental group of Rational Emotive Behaviour therapy, 11 in Positive Self-talk experimental group, while 11 were in control group. The nature of the study does not permits participating teams to have not less or more than 11 players each. This is because only players who played within the regulation time took part in the penalty kicks.

### **Method of Data Analysis**

Copies of completed questionnaire and data generated at pre and posttest were collected, coded and analysed, using descriptive and inferential statistics. Frequency counts, percentages, estimation, scheffe post hoc and Analysis of Co-variance (ANCOVA) were used to test all hypotheses at 0.05 level of significance.

## Results

**Table 1.** *Frequency Distribution of Participants' Position, Age and Playing Experience*

| Demographic characteristics |                    | Frequency | Percentage   |
|-----------------------------|--------------------|-----------|--------------|
| Player's position           | Back               | 11        | 33.3         |
|                             | Midfielder         | 11        | 33.3         |
|                             | Forwarder          | 11        | 33.3         |
| <b>Total</b>                |                    | <b>33</b> | <b>100.0</b> |
| Player's age range          | 16-18 years        | 4         | 12.1         |
|                             | 19-21 years        | 15        | 45.5         |
|                             | 22-24 years        | 8         | 24.2         |
|                             | 25-27 years        | 4         | 12.1         |
|                             | 28-30 years        | 2         | 6.1          |
| <b>Total</b>                |                    | <b>33</b> | <b>100.0</b> |
| Playing experience          | Less than 3 years  | 5         | 15.2         |
|                             | 4-6 years          | 12        | 36.4         |
|                             | 7-9 years          | 8         | 24.2         |
|                             | 10 years and above | 8         | 24.2         |
| <b>Total</b>                |                    | <b>33</b> | <b>100.0</b> |

The table above shows equal distribution of the participants on playing position. It indicates that majority of the participants were between the ages of 19 and 21, while their average age was  $21.64 \pm 2.30$  years. Also, 24.2% had played for 7 to 9 years and more than 10 years respectively, 36.4% played for 4 to 6 years, while 15.2.% had less than 3 years playing experience.

## Answers to Research Questions

**Research question one:** Is there any universal law that attributes the outcome of from penalty mark to luck?

**Table 2.** *Perception of any universal law, attributing outcomes of Penalty to luck?*

| There is no universal law that attributes the outcomes of kicks from penalty mark to luck | Frequency | Percentage   |
|-------------------------------------------------------------------------------------------|-----------|--------------|
| Strongly disagree                                                                         | 0         | 0            |
| Disagree                                                                                  | 4         | 12.1         |
| Neutral                                                                                   | 8         | 24.2         |
| Agree                                                                                     | 12        | 36.4         |
| Strongly Agree                                                                            | 9         | 27.3         |
| <b>Total</b>                                                                              | <b>33</b> | <b>100.0</b> |

Table 2 shows that 4 (12.1%) respondents disagreed that no universal law attributes the outcomes of kicks from penalty mark to luck, 8 (24.2%) neither agreed nor disagreed while 21 (63.7%) of the participants agreed that there is no universal law that attributes the outcomes of kicks from penalty mark to luck. Hence, according to the data collected, the participants agreed that there was no universal law that attributes the outcomes of kicks from penalty mark to luck.

### Research Question Two

Will university football players attribute the outcomes of penalty kicks to luck?

**Table 3.** *Perception on the Attribution of Outcomes of Penalty Kicks to Luck*

| Attribution of outcomes of penalty kicks to luck | Frequency | Percentage   |
|--------------------------------------------------|-----------|--------------|
| Strongly disagree                                | 3         | 9.1          |
| Disagree                                         | 7         | 21.2         |
| Neutral                                          | 7         | 21.2         |
| Agree                                            | 11        | 33.3         |
| Strongly Agree                                   | 5         | 15.2         |
| <b>Total</b>                                     | <b>33</b> | <b>100.3</b> |

Table 3 shows that 10 (30.3%) participants do not attribute the outcomes of kicks from penalty mark to luck, 7 (21.2%) neither agreed nor disagreed to the outcomes of their penalty kicks being attributed to luck, while 16 (48.52%) agreed that the outcomes of their penalty kicks were attributed to luck. Hence, it can be concluded from their responses that university football players attributed the outcomes of their penalty kicks to luck.

### Research Question Three

Do university football players experience anxiety and pressure during kicks from the penalty mark?

**Table 4.** *Experience of Anxiety/pressure during Kicks from Penalty Mark*

| Football players experience anxiety and pressure during kicks from penalty mark | Frequency | Percentage   |
|---------------------------------------------------------------------------------|-----------|--------------|
| Disagree                                                                        | 1         | 3.0          |
| Neutral                                                                         | 3         | 9.1          |
| Agree                                                                           | 11        | 33.3         |
| Strongly Agree                                                                  | 18        | 54.5         |
| <b>Total</b>                                                                    | <b>33</b> | <b>100.0</b> |

Table 4 shows that 1 (3.0%) of the participants disagreed that university football players experience anxiety and pressure during kicks from penalty mark, 3 (9.1%) neither agreed nor disagreed, while 29 (87.8%) agreed. Hence, it can be concluded from the findings of the study that university football players experienced anxiety and pressure during kicks from penalty mark.

## Hypotheses Testing

**Table 5.** ANCOVA Showing the Main and Interaction Effects of Treatments, Playing Experience and Playing Position on Outcomes of Kicks from Penalty Mark among University Football Players in Southwestern Nigeria

| Source                      | Sum of Squares | DF | Mean Square | F      | Sig. | Eta. Sq |
|-----------------------------|----------------|----|-------------|--------|------|---------|
| Corrected Model             | 215.612        | 17 | 12.683      | 3.150  | .015 | .781    |
| Intercept                   | 154.849        | 1  | 154.849     | 38.463 | .000 | .719    |
| Pre Penalty outcome         | 38.612         | 1  | 38.612      | 9.591  | .007 | .390    |
| <u>Main effect:</u>         |                |    |             |        |      |         |
| Treatment                   | 58.241         | 2  | 29.121      | 7.233  | .006 | .491    |
| Playing experience          | 1.869          | 1  | 1.869       | 0.464  | .506 | .030    |
| Playing position            | 12.445         | 2  | 6.223       | 1.546  | .245 | .171    |
| <u>2-way Interactions:</u>  |                |    |             |        |      |         |
| Treatment x P. Experience   | 41.491         | 2  | 20.746      | 5.153  | .020 | .407    |
| Treatment x P. Position     | 30.688         | 4  | 7.672       | 1.906  | .162 | .337    |
| P. Experience x P. Position | 0.717          | 2  | 0.359       | 0.089  | .915 | .012    |
| <u>3-way interactions:</u>  |                |    |             |        |      |         |
| Treatment x P. E x P. P     | 4.204          | 3  | 1.401       | 0.348  | .791 | .065    |
| Error                       | 60.388         | 15 | 4.026       |        |      |         |
| Total                       | 1101.000       | 33 |             |        |      |         |
| Corrected Total             | 276.000        | 32 |             |        |      |         |

R Squared= .781 (Adjusted R Squared = .533)

Table 5 shows the main and interaction effect of treatments, playing experience and position on outcomes of kicks from penalty mark among university football players. The results indicate that there was a variance of 78.1 percent, accounted for, by the independent variables.

**Hypothesis one:** There is no significant main effects of treatments (Rational Emotive Behaviour Therapy and Positive self-talk) and control on kicks from penalty mark among university football players.

Table 4.10 shows that there is a significant main effect of treatment (Rational Emotive Behaviour Therapy and Positive Self-talk) on outcomes of kicks from penalty among university football players in Southwest Nigeria ( $F = (2,33)7.233$ ,  $p < .05$ ,  $\eta^2 = .491$ ). There is a contributing effect size of 49.1%. The null hypothesis is therefore, rejected.

**Table 6.** Estimated Marginal Means on Outcomes of Kicks from Penalty Mark among University Football Players in Southwestern Nigeria

| Treatment groups                          | Mean ( $\bar{X}$ ) | Std. Error |
|-------------------------------------------|--------------------|------------|
| Rational Emotive Behaviour Therapy (REBT) | 7.261              | .659       |
| Positive Self-talk (PSt)                  | 5.446              | .669       |
| Control                                   | 3.468              | .719       |

Table 6 shows the estimated marginal means of treatment on outcomes of kicks from penalty mark among university football players in Southwest Nigeria. Rational

Emotive Behaviour Therapy was the most potent therapy, followed by Positive Self-talk, and the control group.

**Table 7.** *Estimated Marginal Means of Players' Positions on Outcomes of Kicks from Penalty Mark among University Football Players in Southwestern Nigeria*

| Playing position | Mean ( $\bar{X}$ ) | Std. Error |
|------------------|--------------------|------------|
| Defender         | 5.383              | .659       |
| Midfielder       | 6.182              | .683       |
| Forwarder        | 4.443              | .617       |

Table 7 shows the estimated marginal means of players' position on outcomes of kicks from penalty mark among university football players in Southwest Nigeria

**Hypothesis two:** There is no significant interaction effects of treatments and playing experience on outcomes of kicks from penalty mark among university football players.

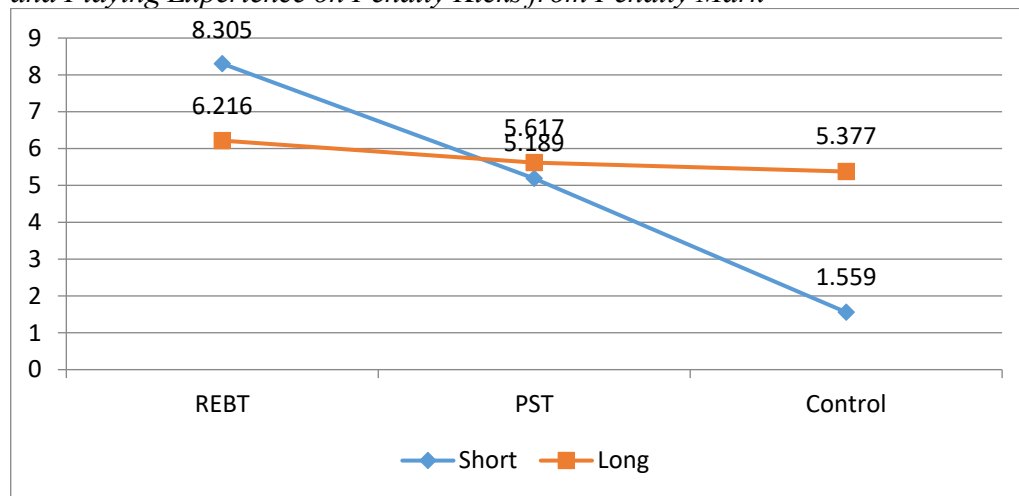
The table reveals that there is a significant interaction effect of treatments and playing experience on kicks from penalty mark outcome among university football players in Southwest Nigeria. ( $F = (2, 33) = 5.153$ ,  $p < .05$ ,  $\eta^2 = .407$ ). The hypothesis is rejected. The table also shows the contributing effect size of 40.7%.

**Table 8.** *Estimated Marginal Means of Treatment and Playing Experience on Outcomes of Kicks from Penalty Mark Outcome among University Football Players in Southwestern Nigeria*

| Treatment                                   | Playing experience | Mean ( $\bar{X}$ ) | Std. Error |
|---------------------------------------------|--------------------|--------------------|------------|
| Rotational Emotive Behaviour Therapy (REBT) | Short              | 8.305              | 1.071      |
|                                             | Long               | 6.216              | 0.836      |
| Positive Self Talk (PST)                    | Short              | 5.189              | 1.191      |
|                                             | Long               | 5.617              | 0.773      |
| Control                                     | Short              | 1.559              | 1.000      |
|                                             | Long               | 5.377              | 1.022      |

Table 8 shows the estimated marginal means of treatment and playing experience on outcomes of kicks from penalty mark among university football players.

**Figure 1.** Line Graph showing the Interaction Effect between the Treatment Groups and Playing Experience on Penalty Kicks from Penalty Mark



**Hypothesis three:** There is no significant interaction effect of treatments and player's position on outcomes of kicks from penalty mark among university football players.

Table 9 shows that there was no significant interaction effect of treatment and players' position on outcomes of kicks from penalty mark among university football players. ( $F = (2, 33) = 1.906, p > .05, \eta^2 = .337$ ). However, the mean difference of data generated indicate that the midfielders, followed by the forward players, converted more of their kicks than the defenders.

**Table 9.** Estimated Marginal Means of Treatment and Players' Positions on Outcomes of Kicks from Penalty Mark among University Football Players in Southwestern Nigeria

| Treatment | Player's position | Mean ( $\bar{X}$ ) | Std. Error |
|-----------|-------------------|--------------------|------------|
| REBT      | Defender          | 6.956              | 1.229      |
|           | Midfielder        | 8.082              | 1.161      |
|           | Forwarder         | 6.744              | 1.053      |
| PSt       | Defender          | 3.981              | .939       |
|           | Midfielder        | 6.217              | 1.181      |
|           | Forwarder         | 6.833              | 1.435      |
| Control   | Defender          | 5.210              | 1.297      |
|           | Midfielder        | 4.248              | 1.231      |
|           | Forwarder         | 0.946              | .997       |

Table 9 shows the estimated marginal means of treatment and player's position on outcomes of kicks from penalty mark among university football players in Southwest Nigeria

## **Discussion of Findings**

Kicks from penalty mark are critical for determination of the team who wins at the decisive, elimination stage of football competition. The study revealed that players were under pressure and were anxious when they were included in kicks from penalty mark. This is in line with the findings of Beilock, Carr, MacMahon, & Starkes (2002), where they concluded that pressure could increase players' level of nervousness as a result of its effects on their mental capability, while anxiety underscores the 'choking under pressure' phenomenon, which influence is frequently observed among high profile players when they fail to successfully accomplish performance tasks, especially in highly stressful conditions like kicks from penalty mark. Research findings did not only establish the influence of anxiety and pressure on kicks from penalty mark, but also indicated the reasons accountable for them. Jordet and Hartman (2008) asserted that players converted 92% of their penalty kicks when a certain kick was to determine a winner in order to break a tie. But 61.8% of their kicks was converted when a penalty kick was to keep the team from losing. The difference in the results was probably attributed to choking and penalty stress as a result of failure of perception control by players.

In addition, findings in the study revealed that irrational beliefs and thoughts by the participants about the outcomes of kicks from penalty mark, being dependent on luck accounted for the pressure and anxiety they experienced when included in decisive penalty kicks. This is in agreement with the findings of Greg, Geir and Mark (2015), where they asserted that penalty kicks are frequently attributed to lottery result, which suggests that luck, apart from players' kicking ability, determines its outcomes. In addition, Palacios-Huerta (2003), investigations revealed that the rate of saving a penalty kick, if the goalkeeper remains on a spot was 6% while it was also found to increase to 60% if the goalkeeper dives to either left or right. Also, out of 41% of the kicks that landed 6 feet inside each goal post, only one (8%) of the kicks was saved. This result rules out the influence of luck and suggests that it becomes a factor when there are inaccurate penalty kicks. Although, responses from the participants revealed that outcomes of kicks from penalty mark was dependent on luck, but their beliefs that no law of the universe attributes it to luck was a contrary response. It may be inferred from this assumption that every kicker who converted penalty kick was lucky. But it will be irrational to make this conclusion. If the outcomes of kicks from penalty mark are absolutely dependent on luck, there is tendency for all penalty kickers to rely on luck for the outcomes of their performance. Loss in decisive kicks from penalty mark by a team, acclaimed as a technically better side, according to performance evaluation may be attributed to the impression that its outcome is dependent on luck. Therefore, the researchers disputed the assumption, asserting that the conclusion that kicks from penalty mark outcomes depend on luck is irrational and illogical.

It is pertinent for team handlers to create an enabling psychological environment with a view to predicting and determining its outcome in favour of their teams, and for players to cope. This corroborated the findings of Haggins (2000), where he noted that the most important factor for prediction of outcomes of kicks from penalty mark is to adequately prepare selected players for the tasks. According to

Jordet and Elferink (2012), the period before the commencement of penalty kicks after the expiration of extra time is a critical moment when players manifest the effects of their views on the tie breaker, being a stressor as a result of lack of perceived psychological support. Psychological interventions administered in this study assisted the participants, thereby reducing the anxiousness experienced by players when included in decisive penalty kicks. However, the researchers could not determine other internal and personal intervening variables the participants experienced during the study. Also, research findings established the need for team managers to identify players who are likely to manifest chronic anxiety. Therefore, team handlers have to be intentional about inclusion of mental skills interventions during training sessions.

Results of the study also revealed a difference in mean score value between players with long and short playing experience, establishing that players with longer years of playing experience converted more kicks than players with short playing experience. This is at variance with the findings of Jordet (2009), who gave a report of successful conversion rates of kicks from penalty mark of players, according to the experience they had. In the analysis, it was concluded that experienced players with medals in both national and international competitions (elite players) converted 65% of their penalty kicks, potential future players converted 89% of their kicks while upcoming players who had minimal or no experience converted 73.6% of their penalty kicks.

Findings from the study revealed differences in mean score values for mid-field, defense and forward players. The midfield players had highest rate of penalty conversion, while defensive players had higher conversion rate than forward players (strikers). This is not in agreement with the findings of Hartman, Visscher & Lemmink (2006), where they examined conversion percentage rate among penalty kickers of different playing position. Findings of their study revealed that players who play defensive role converted 73.6% of their penalty kicks, midfielders got 79.6% of their kicks while attackers converted 83.1% of their kicks.

### **Effects of treatments on dependent variable**

The independent variables of Rational Emotive Behaviour Therapy and Positive self-talk accounted for the variation observed in the dependent variable of kicks from penalty mark among the participants. Findings from the study revealed that irrational beliefs and thoughts of the participants accounted for pressure and anxiety they experienced, when included in decisive penalty kicks. The study indicated that the participants perceived kicks from penalty mark outcomes as a form of lottery, the probability of the result of it, being dependent on the lucky team. This impression informed their thoughts formation which made them to have some internal deliberations about their doubts for positive outcomes of kicks from penalty mark. For example, some of the players were thinking about the disappointments and feelings of failure their teams were likely to be exposed to, if they fail to convert their penalty kicks. In addition, some of them wanted to convert their kicks at all cost, thereby increasing their arousal and anxiety beyond optimal level.



PSt was used to dispel distorted thinking that leads to negative self-talk among the participants, while REBT was used to dispute their irrational beliefs about the outcomes of their penalty kicks being dependent on luck, because any illogical belief by athletes about performance outcomes will make them express illogical approach to them. Therefore, the participants were enlightened on the illogicality of the belief that kicks from penalty mark was based on luck. Also, the absolute demand and preference for conversion of penalty kicks made by players contributed to their anxiousness. The theory of REBT proposes that a non-dogmatic preference for expression of beliefs should include five defining characteristics vis-à-vis flexibility or non-extreme beliefs, consistency with reality, logical, and largely functional in their emotional, behavioural and cognitive consequences, which are helpful to individuals in pursuing their basic goals and purposes. This implies that the wishes and desires of players in form of preferences should be flexible because the preferences of an individual are at the core of his psychological health (Dryden & Branch, 2011). Hence, when human beings absolutely hold on to their non-dogmatic preferences and decide not to change it to absolute expression, they could feel healthily concerned about situations and events. The rationality of this event connotes that penalty kickers should be positive about their performances, neglecting and disputing all negative feelings and impression about the outcomes of penalty kicks that could lead to emotional disturbances. In addition, players should not have absolute preferences for conversion of their penalty kicks. Their preferences should not be dogmatic in nature. This implies that they should make provisions for emotional management of situations where the results they get from their penalty performance are not in conformity with their initial plans. Penalty kickers will be free from emotional distractions that could emanate from anxiety and pressure associated with penalty kicks if they have flexible, but not rigid performance intentions.

## Conclusion

The study investigated Effects of Rational Emotive Behaviour Therapy and Positive self-talk on the outcomes of kicks from penalty mark among university football players in Southwest Nigeria. Kicks from penalty mark, presumed anxiety motivated skill, are crucial part of football tournaments. Its outcome, when used as tie breaker is often termed 'lottery result', attributing luck, apart from players' kicking ability, as determining the fate of a football team. The impression that outcomes of kicks from penalty mark are dependent on luck could increase anxiety, reduce positive perception, and negatively influence performance behaviour of penalty kickers.

Therefore, it is important that players are given adequate time for mental rehearsal before competing in football tournaments, where the possibilities of enforcing penalty kicks for tie breaking cannot be ruled out. The study hypothesizes provision of structured, effective, specific and result oriented interventions, designed within the confines of psychological experiences the players are likely to be exposed to during penalty kicks. The independent variables of REBT and PSt as the interventions for the study were manipulated on the dependent variable of outcomes of kicks from penalty mark. There were two moderating variables of playing experience and players' position.

The study revealed a significant main effect of Rational Emotive Behaviour Therapy and Positive Self-talk on the outcome variable. The participants in the REBT group had the highest post mean score than those in PSt and control groups. There was a significant interaction effect of treatment on playing experience. The players with long playing experience had a higher mean score than those with low playing experience. Therefore, REBT and PSt therapies should be used as psychological interventions and coping resources for football players for a more predictable kicks from penalty mark outcomes.

## Recommendations

1. Outcomes of kicks from penalty mark in football tournaments are associated with pressure and anxiety. Therefore, penalty kickers should be equipped with psychological coping resources to cater for arousal and anxiety beyond optimal level.
2. Based on the significant effects of Rational Emotive Behaviour Therapy and Positive Self-talk therapies on kicks from penalty mark, it is therefore recommended that they should be used as psychological interventions and coping resources for penalty kickers.
3. Team managers should determine players who are psychologically prepared and ready to manage associated pressure of kicks from penalty mark.
4. Team handlers should select more experienced football players for penalty kicks and consideration should be given to mid field players than forward (attacking) and defensive players.
5. Team handlers should always dispute the perception among football players that outcomes of kicks from penalty mark are dependent on luck, because no universal law justifies this. Findings of the study has established that, their outcomes can be dependent on psychological skills.

## References

- Dryden, W., & Branch, R. (2008). *The fundamentals of rational-emotive behavior therapy*. A Training Handbook, second edition. West Sussex: Wiley.
- Ekechukwu, R.O., & Onyekuru, B.U. (2014). *New Dawn In Counselling Psychology, In school and Non school Setting*. Owerri. Career Publishers.
- Ellis, A. (2003). Early theories and practices of rational emotive behaviour theory and how they have been augmented and revised during the last three decades. *Journal of Rational-Emotive & Cognitive-Behaviour*.
- Ellis, A., & Dryden, W. (2007). *Therapy*. The Practice of Rational Emotive Behavioural Therapy, 2nd ed. New-York: Springer Publishing Company.
- Greg, W., Jordet, G., & Mark, R. (2015). On winning the "lottery": psychological preparation for football penalty shoot-outs, *Journal of Sports Sciences*.
- Hardy, J., & Hall, C. R. (2006). Exploring coaches' promotion of athlete self-talk. *Hellenic Journal of Psychology*, 3, 150–163.
- Hatzigeorgiadis, A., Zourbanos, N., Galanis, E., & Theodorakis, Y. (2011). Self-talk and sports performance: A meta-analysis. *Perspectives and Psychological Science*, 6, 348-356-0019-5.

- Jordet, G., Hartman, E., Visscher, C., & Lemmink, K. A. P. M. (2007). Kicks from the penalty mark in soccer: The roles of stress, skill, and fatigue for kick outcomes. *Journal of Sports Sciences*.
- Jordet, G. (2009). When superstars flop: Public status and choking under pressure in international soccer penalty shootouts. *Journal of Applied Sports Psychology*, 21, 125-130.
- Jordet, G., & Elferink-Gemser, M.T. (2012). Stress, coping, and emotions on the world stage: The experience of participating in a major soccer tournament penalty shootout. *Journal of Applied Sport Psychology*, 24, 73-91.
- MacInnes, D. (2004). The theories underpinning rational emotive behavior therapy: Where's the supportive evidence? *International Journal of Nursing Studies*, 41, 685-695. doi: 10.1016/j.ijnurstu.2004.02.004.
- Olaoye, O.P., & Fadoju, A.O. (2021). Perceived Determinants of Kicks from Penalty Mark Outcomes among Football Players- Psychological Implications. *Journal of Human Kinetics and Health Education*, Lagos State University.
- Olaoye, O.P. (2022). *Unpublished Thesis titled 'Effects of Rational Emotive Behaviour Therapy and Positive Self-talk on Kicks from Penalty Mark among University Football Players in Southwest Nigeria*, presented at Post graduate doctoral defence on January 11, 2022.
- Palacios-Huerta, I. (2003). Professionals play minimax. *Review of Economic Studies*, 70(2), 395-415. doi:10.1111/1467-937X.00249.
- Spencer, S. (2005). *Rational Emotive Behavior Therapy: Its effectiveness with children, A Research Paper submitted in Partial Fulfillment of the Requirements for the Master of Science Degree in Guidance and Counseling*. The Graduate School, University of Wisconsin – Stout, December, 2005.
- Thompson, P. H., & Brown, D. T. (2007). *Counselling and Psychotherapy with Children and Adolescents: Theory and Practice for School and Clinical Settings*. 4th Ed., Clinical Psychology Publishing Company.
- Williams, J. M., & Straub, W. F. (2006). Sport psychology: Past, present, future. In J. M. Williams (Ed.), *Applied sport psychology. Personal growth to peak performance* (5th ed., pp. 1–14). Boston: McGraw-Hill.; Yasnitsky, A., van der Veer, R., & Ferrari, M. 2014. *The Cambridge handbook of cultural-historical psychology*. Cambridge, U.K.: Cambridge University Press.
- Olaoye, O.P., & Fadoju, A.O. (2021). Perceived Determinants of Kicks from Penalty Mark Outcomes among Football Players- Psychological Implications. *Journal of Human Kinetics and Health Education*, Lagos State University.
- Olaoye, O.P. (2022). *Unpublished Thesis titled 'Effects of Rational Emotive Behaviour Therapy and Positive Self-talk on Kicks from Penalty Mark among University Football Players in Southwest Nigeria*, presented at Post graduate doctoral defence on January 11, 2022.

