

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

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 skill. Previous studies have focused more on 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 southwestern Nigeria. A pretest-posttest control group quasi-experimental design, with a  $3 \times 3 \times 2$  factorial matrix was adopted. 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

## 41 Introduction

43 Kicks from penalty mark, presumed anxiety filled skills, are crucial part of  
44 football tournaments. They are frequently used in major football competitions  
45 for decision making, particularly when it is mandatory for a team to emerge as  
46 winner. At this stage, expressions of anxiety and uncertainties are often observed  
47 among players, coaches, spectators and other sport enthusiasts because  
48 unpredictable outcomes of kicks from penalty are associated with feelings of

1 apprehension among them. According to Greg, Geir and Mark (2015), kicks  
2 from penalty mark outcomes are frequently acclaimed as a “lottery”, attributing  
3 luck rather than skills level of the players as determinant of its outcomes. The  
4 assertion of the probability of kicks from penalty mark being dependent on luck  
5 justifies the reason many great and elite football players have suffered the  
6 misfortune of missing in international football competitions. Loss of kicks from  
7 penalty mark is not only peculiar to elite football players, it is also common  
8 among university football players. In the 25th edition of sports competition  
9 organized by Nigeria Universities Games Association (NUGA), held at  
10 University of Agriculture, Markurdi, Abubakar Tafawa Balewa University  
11 (ATBU) engaged hard-fighting Lagos State University (LASU) in kicks from  
12 the penalty mark in one of the knock out group stages of the competition. Lagos  
13 State University was rated a better side, but ATBU defeated LASU by 4-2 on  
14 penalties. The celebration of victory often expressed by players, fans and  
15 coaches when their team wins from favorable results of penalty kicks than the  
16 satisfaction they display when the team wins after regulations time, coupled with  
17 the expression of greater feelings of disappointment of the loosing team  
18 compared to when they lose as a result of poor performance within regulation  
19 time, establishes the uncertainties of outcomes of kicks from penalty mark  
20 among them. The perception of the probability of these kicks being  
21 unpredictable has made many football players to view it as a lottery venture or  
22 an outcome of luck. This assertion can be attributed to some evidences of  
23 elimination or loss of stronger football teams at major decisive national and  
24 international football tournaments. The impression that kicks from penalty mark  
25 are dependent on luck could decreases players' ability of being in control of  
26 perceived thoughts, thereby heightening anxiety and mediating negatively on  
27 performance behaviour of penalty kickers. Olaoye & Fadoju (2021), asserted  
28 that it may not be logical to arrive at the conclusion that outcomes of kicks from  
29 penalty mark are dependent on luck, because it may erroneously imply that all  
30 players who converted their penalty kicks were lucky. Although, players often  
31 experience choking when they are included in decisive penalty kicks, but the  
32 belief that its outcome is based on luck could become a major stressor for the  
33 kickers. Findings from researches conducted on kicks from penalty mark have  
34 shown corresponding effects of anxiety on performance outcome of players.  
35 Jordet, Hartman, Visscher and Lemmink (2007) examined 400 kicks from  
36 penalties held during major tournaments. Findings from their examination  
37 showed that the team who knew that their last attempt, if missed, would instantly  
38 result to loss of the competition scored 60% of their penalty kicks, while the  
39 team who knew that a score in their last attempt would result to a win converted  
40 92%. This corroborates the effect of pressure exhibited by a penalty kicker when  
41 a miss will result to loss of competition, and optimism expressed when a  
42 successful conversion of the last attempt would result to a win. Therefore, lack  
43 of psychological coping resources and its application in stressful situations,  
44 underscores the reason football players experience choking under pressure and  
45 lose in penalty kicks. According to Jordet, Hartman, Visscher and Lemmink  
46 (2007), kicks from penalty mark is one of very few occasions in a predominantly

1 fast-moving team sport where players are under individual scrutiny and have  
2 sufficient time to think about the consequences of failure. The period between  
3 the end of extra time and when penalty commences is a crucial moment when  
4 players are found to be more anxious, stressed and tensed up as a result of lack  
5 or inadequate psychological coping strategies with absence of emotional  
6 coordination (Jordet and Elferink, 2012). Consequently, penalty kickers may not  
7 have the opportunity to physically rehearse shooting drills when kicks from  
8 penalty mark are used for breaking a tie. However, they can have a mental picture  
9 on how to get desired results. Therefore, it can be inferred that the coping  
10 resources a penalty kicker requires before performance are more psychological  
11 than being physical (Olaoye & Fadoju, 2022)., Therefore, the possibility of  
12 determining the outcomes of kicks from penalty mark could be anchored on  
13 relevant psychological preparations. Psychological skills training that will  
14 strengthen thought patterns and reduce feelings of uncertainties, associated with  
15 outcomes of penalty kicks for sustained perception of control towards the  
16 realization of desired results among penalty kickers should be given priority.  
17 These should be structured and designed within the confines of psychological  
18 experiences players are likely to be exposed to during every stage of kicks from  
19 penalty mark, for enhancement of their control over the outcomes of their penalty  
20 kicks, rather than the outcomes being based on luck. Consequently, mental  
21 practice such as Rational Emotive Behaviour Therapy (REBT), Positive Self-  
22 talk (PSt) and some penalty training strategies could improve performance  
23 outcomes of penalty kickers

24 Rational emotive behaviour therapy (REBT) is a cognitive based  
25 behavioural therapeutic intervention that can reduce anxiety and increase  
26 perception of control of athletes. (Ellis, Albert, and Dryden, 2007). It is a  
27 cognitive behavioural guidance technique which is predicated on the premise  
28 that the beliefs people have in connection to the disappointments they experience  
29 could negatively mediate on their perceptions of thoughts and their emotional  
30 responses. It is an effective treatment method for reducing severe motives and  
31 behaviour (Spencer, 2005). REBT is an eminent psychological provision,  
32 associated with two core principles (MacInnes, 2004). It proposes that emotional  
33 concerns and disturbances are caused by some specific irrational beliefs people  
34 have about something and that emotional well being and psychological wellness  
35 of individuals are preceded by certain rational beliefs (for example, preferences,  
36 anti-awfulising, self-other, or world-acceptance) and or high-frustration  
37 tolerance. Ellis, (2003) asserted that one of the main pillars of Rational Emotive  
38 Behaviour Therapy is that irrational patterns of thinking, feeling and behaving  
39 are the cause of much human disturbance, including depression and anxiety.  
40 REBTs central premise is that events alone do not cause a person to feel  
41 depressed, enraged, or highly anxious. Rather, it is one's beliefs about the events  
42 which contribute to unhealthy feelings and self-defeating behaviour (Ellis,  
43 2003). According to Ekechukwu and Onyekuru (2014), rational emotive  
44 behaviour therapy may be used to reduce aggression, depression and other  
45 emotional maladjustment problems. REBT has been found to be applicable and  
46 effective in treating emotional challenges. Rational emotive behaviour therapists

1 strongly believe in the rules of logic, cognition, and scientific method application  
 2 to daily routine (Ellis, 2003). REBT attempts to move towards psychological  
 3 training, focusing on skills such as the identification, criticism and substitution  
 4 of inefficient beliefs and in so doing, it makes use of cognitive, emotive, mental  
 5 imaging, behavioural and systemic skills (Thompson and Brown, 2007). Its  
 6 central mechanism is basically for conversion of irrational beliefs to rational  
 7 ones through a well patterned ABCDE therapeutic model (Ellis, 2003). The  
 8 framework is just to identify irrational beliefs, called (B), by unveiling the  
 9 reason(s) a certain event at (A) brings about unhealthy emotions and behaviour,  
 10 called (C), a core element of REBT. When the ABC chain is identified, then  
 11 these irrational beliefs are dispelled or disputed at (D). The D is thereafter  
 12 replaced with rational beliefs, leading to healthy and more acceptable emotions  
 13 and behaviour, called (E), thereby yielding to new rationale philosophical  
 14 dispositions. The focus of REBT is that reduction in irrational beliefs can lead  
 15 to reduction in negative emotional and behavioural dysfunctions.

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

1 and players who were striving to become potential future at the time of their  
 2 involvement in penalty kicks. From his findings, elite players successfully  
 3 converted only 65% of their kicks from penalty mark, potential future players  
 4 converted 73.6% while those who never won any medals in their football career  
 5 were 88.9% successful. It could be inferred that the upcoming stars were more  
 6 successful because a high level of anxiety they probably experienced from  
 7 penalty kicks was perceived in their judgement as an avenue to prove their worth/  
 8 On players' playing position, Jordet et al (2007), concluded in their findings  
 9 when they examined different playing position with corresponding conversion  
 10 rates of their penalty kicks. They hypothesized that Attackers converted 83.2%  
 11 of their penalty kicks, midfielders converted 79.7% and defensive players  
 12 converted 73.7%. According to them, the effect of the duration of time the  
 13 players were on the pitch was considered. They opined from their  
 14 observations that players who had played for 30 minutes or less, converted  
 15 86.7% of their penalty kicks. Also, those who played between 31 and 90 minutes  
 16 converted 81.9% of their penalty kicks, and players who play longer than 91  
 17 minutes, converted 80% of their chances. However, their findings did not report  
 18 psychological status of the player. However, if internal verbal or non-verbal  
 19 deliberations are included as part of mental trainings, it will be useful in reducing  
 20 performance stress of being included in kicks from penalty mark among football  
 21 players, irrespective of their playing positions, experience or age.

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23

#### 24 **Rationale for the study**

25

26 Kicks from penalty mark, acclaimed anxiety prone skills are crucial part of  
 27 football tournaments, used for breaking a tie, especially when it is mandatory for  
 28 a team to emerge as winner. Before and during this anxiety motivated tie breaker  
 29 is enforced, expressions of nervousness and curiosity are often elicited by  
 30 players. Some football players prefer being included in penalty kicks awarded  
 31 within regulation time but may prefer being excluded in decisive kicks from  
 32 penalty mark. This is because penalty kicks played within regulation time may  
 33 not determine the outcome of the competition. Consequently, the level of  
 34 anxiousness players experience when included in decisive kicks from penalty  
 35 mark is higher than when they are to play penalty kicks within regulation time.  
 36 Prior to this study, a preliminary investigation was carried out by the researchers  
 37 among football players who took part in Nigeria Private University Games  
 38 (NPUGA) to investigate their perception on outcomes of kicks from penalty  
 39 mark. The findings indicated that 93% of the players believed that its outcome  
 40 is absolutely uncertain, and dependent on luck with presumed feelings of  
 41 associated competitive anxiety while 89% of the respondents preferred to be  
 42 excluded from decisive kicks from penalty mark. Coaches, supporters and fans  
 43 are also anxious when it is enforced when their teams are involved because its  
 44 outcome is perceived to be uncertain. In some instances supporters and fans at  
 45 the stadium and those following the involvement of their teams in decisive kicks  
 46 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 skilful players who displayed striking competence in terms of goal 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. Therefore, 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.

24

25

## 26 **Method**

27

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

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

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46

1   **Instrumentation**

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

3  
4   Shortened General Attitude and Belief Scale (SGABS) was used to assess  
5   irrational thoughts and beliefs of the participants about the outcome of kicks  
6   from penalty mark. It was used to screening of participants them before being  
7   included in the study. Cronbach's alpha was used for re-validation of the  
8   instrument and a significant value of 0.76 was obtained.

9  
10   **2 Believe in Penalty Kicks Outcome Questionnaire (BPKOQ)**

11  
12   Believe in Penalty Kicks Outcome Questionnaire (BPKOQ), a self-  
13   developed instrument was administered to generate data on players' perception  
14   and believe about the outcomes of kicks from penalty mark. It was subjected to  
15   Cronbach's Alpha reliability test with a validity value of 0.82.

16  
17   **3 Penalty Shooting Skill Test (PSST)**

18  
19   Penalty shooting skill test (PSST), a validated measuring instrument was  
20   designed to evaluate penalty shooting skills of the participants. It was used to  
21   assess and record the outcomes of the participants' penalty shots. The instrument  
22   was validated, using university football team different from from the  
23   participants, with a reliability value of 0.89.

24  
25   **PSST Measurement**

26  
27   A player scores;

28  
29  
30   a) 10 points for kicks that cross the goal line, travelling from foot to top  
31   corners of goal post in the air. This included shots targeted above 1.90m  
32   (in height) from the ground and within 1.50m to extreme of the upright of  
33   the goal post.  
34   b) 7 points for kicks that cross the goal line above 1.20m (in height) from  
35   the ground, but below 1.90m and within 1.50m to extreme of the upright of  
36   the goal post.  
37   c) 5 points for kicks that cross the goal line above 0.5m (in height) from the  
38   ground, but below 1.20m and within 1.50m to extreme of the upright of  
39   the goal post  
40   d) 3 points for any goal scored from kicks that enter the goal posts different  
41   from (a, (b) and (c) above.  
42   e) 1 point for any kick that touches the ground or touches the goalkeeper  
43   before crossing the goal line to enter the goal post.  
44   f) Zero point for a missed kick.

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46

1   **Procedure**

2  
3   **Setup:** Penalty area and full-size goal post with nets, on a regulation field  
4   with a ball at the spot of the penalty mark.

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

9  
10   **Facilities and Equipment for Shooting Test**

11   The following facilities and equipment were used;  
12   Football field, goal post, net, balls, whistle, measuring tape, cellotape, training  
13   cones, recording sheets, pen, marker, ropes, paint

14  
15   **Intervention Guides**

16  
17   **1 Rational Emotive Behaviour Therapy (REBT)**

18   Rational emotive behaviour therapy (REBT) is a thought redirection and  
19   irrational beliefs disputing therapy that could reduce stress or overreaction of  
20   athletes to task at hand.

21   **2 Positive Self-talk (PSt)**

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

27  
28   **Procedure for Data Collection**

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

35   A Shortened General Attitude and Belief Scale (SGABS) instrument was used  
36   to assess the irrational thoughts and beliefs of the participants in a given task such  
37   as kicks from penalty mark. A total irrationality score was obtained, by adding  
38   together the scores from the irrationality subscales only. Higher scores indicated  
39   stronger irrational beliefs. It was administered to all participants at the football pitch  
40   of the participating universities by the Researchers and four Research Assistants.  
41   Copies of instrument were collected. And data collated were used to select the

1 participants who scored at least 65 points and above. All the participants were  
2 qualified to take part and had equal chance of being included in the study. Also,  
3 Believe in Penalty Kicks Outcome Questionnaire (BPKOQ). However, those who  
4 took part in the study were identified as the best players by their Coaches.

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

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

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

29 Data generated were from 33 players took part in the study. 11 players were in  
30 experimental group of rational emotive behaviour therapy, 11 in positive self-talk  
31 experimental group, while 11 were in control group. The nature of the study permits  
32 participating teams to have not less or more than 11 players each. This is because  
33 only players who played within the regulation time took part in the penalty kicks.  
34

35

## 36 **Method of Data Analysis**

37

38 Copies of completed questionnaire and data generated at pre and posttest were  
39 collected, coded and analysed, using descriptive and inferential statistics. Frequency  
40 counts, percentages, estimation, scheffe post hoc and Analysis of Co-variance  
41 (ANCOVA) were used to test all hypotheses at 0.05 level of significance.  
42

43

44

1 **Results**

2

3 **Table 1. Frequency distribution of participants' position, age and playing experience**

<b>Demographic characteristics</b>		<b>Frequency</b>	<b>Percentage</b>
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>

4

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

10

11

12 **Answers to research questions**

13

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

16

17

**Table 2. Perception distribution of position, age and playing experience**

<b>There is no universal law that attributes the outcomes of kicks from penalty mark to luck</b>	<b>Frequency</b>	<b>Percentage</b>
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>

18

19 Table 2 shows that 4 (12.1%) respondents disagreed to having no universal  
 20 law that attributes the outcome of penalty shoot-out to luck, 8 (24.2%) neither  
 21 agree nor disagree while 21 (63.7%) of the participants agreed that there is no  
 22 universal that attributes the outcomes of kicks from penalty mark to luck. Hence,  
 23 according to the data collected, the participants agreed that there was no  
 24 universal law that attributes the outcomes of kicks from penalty mark to luck.

25

1 **Research question two**2  
3 Will university football players attribute the outcomes of penalty kicks to  
4 luck?  
56 **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>

7  
8 Table 3 shows that 10 (30.3%) university students do not attribute the  
9 outcomes of their penalty kicks to luck, 7 (21.2%) neither agree nor disagree to  
10 the outcomes of their penalty kicks being attributed to luck while 16 (48.52%)  
11 agreed that the outcomes of their penalty kicks were attributed to luck. Hence, it  
12 can be concluded from their responses that university football players attributed  
13 the outcomes of their penalty kicks to luck.  
14  
1516 **Research question three**17  
18 Do university football players experience anxiety and pressure during kicks  
19 from the penalty mark?  
2021 **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>

22  
23 Table 4 shows that 1 (3.0%) of the respondents disagreed that university  
24 football players experience anxiety and pressure during kicks from penalty mark,  
25 3 (9.1%) neither agreed nor disagreed while 29 (87.8%) agreed. Hence, it can be  
26 concluded from the findings of the study that university football players  
27 experienced anxiety and pressure during kicks from penalty mark  
28

1    **Hypotheses testing**

2

3    **Table 5.** *ANCOVA showing the main and interaction effects of treatments,*  
 4    *playing experience and playing position on outcomes of kicks from penalty mark*  
 5    *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				

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

7

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

12   **Hypothesis one:** There is no significant main effects of treatments (rational  
 13   emotive behaviour therapy and positive self-talk) and control on kicks from  
 14   penalty mark among university football players.

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

20

21   **Table 6.** *Estimated marginal means on outcomes of kicks from penalty mark*  
 22   *among university football players in Southwestern Nigeria*

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

23

24   Table 6 shows the estimated marginal means of treatment on outcomes of  
 25   kicks from penalty mark among university football players in Southwestern

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

3  
 4 **Table 7. Estimated marginal means of players' positions on outcomes of kicks**  
 5 *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

6  
 7 Table 7 shows the estimated marginal means of players' positions on  
 8 outcomes of kicks from penalty mark among university football players in  
 9 Southwestern Nigeria

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

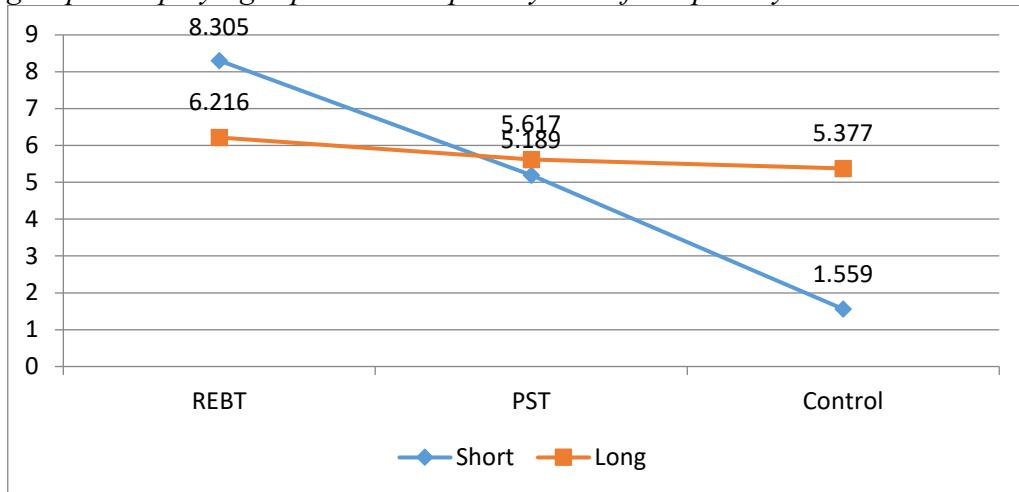
13 Table reveals that there is a significant interaction effect of treatments and  
 14 playing experience on kicks from penalty mark outcome among university  
 15 football players in Southwestern Nigeria. ( $F = (2, 33) = 5.153$ ,  $p < .05$ ,  $\eta^2 = .407$ ). The  
 16 hypothesis is rejected. The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

17  
 18 **Table 8. Estimated marginal means of treatment and playing experience on**  
 19 *outcomes of kicks from penalty mark outcome among university football players*  
 20 *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

21  
 22 Table 8 shows the estimated marginal means of treatment and playing experience  
 23 on outcomes of kicks from penalty mark among university football players.

1 **Figure 1.** Line graph showing the interaction effect between the treatment  
 2 groups and playing experience on penalty kicks from penalty mark



3  
 4 **Hypothesis three:** There is no significant interaction effect of treatments  
 5 and player's position on outcomes of kicks from penalty mark among university  
 6 football player.

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

12  
 13  
 14 **Table 9.** Estimated marginal means of treatment and players' positions on outcomes  
 15 of kicks from penalty mark among university football players in Southwestern Nigeria

Treatment	Player's position	Mean (X̄)	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

16  
 17 Table 9 shows the estimated marginal means of treatment and player's  
 18 position on outcomes of kicks from penalty mark among university football  
 19 players in Southwestern Nigeria

20  
 21  
 22

1     **Discussion of findings**

2

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

20    In addition, findings in the study revealed that irrational beliefs and thoughts  
21    by the participants about the outcomes of kicks from penalty mark being  
22    dependent on luck accounted for the pressure and anxiety they experienced when  
23    included in decisive penalty kicks. This is in agreement with the findings of  
24    Greg, Geir and Mark (2015), where they asserted that penalty kicks are  
25    frequently attributed to lottery result, which suggests that luck, apart from  
26    players' kicking ability, determines its outcomes. In addition, Palacious-Huerta  
27    (2003), investigations revealed that the rate of saving a penalty kick if the  
28    goalkeeper remains on a spot was 6% while it was also found to increase to 60%  
29    if the goalkeeper dives to either left or right. Also, out of 41% of the kicks that  
30    landed 6 feet inside each goal post, only one (8%) of the kicks was saved. This  
31    result rules out the influence of luck and suggests that it becomes a factor when  
32    there is inaccurate penalty kicks. Although, responses from the participants  
33    revealed that outcomes of kicks from penalty mark was dependent on luck, but  
34    their beliefs that no law of the universe attributes it to luck was a contrary  
35    response. It may be inferred from this assumption that every kicker who  
36    converted penalty kick was lucky. But it will be irrational to make this  
37    conclusion. If the outcomes of kicks from penalty mark are absolutely dependent  
38    on luck, there is tendency for all penalty kickers to rely on luck for the outcomes  
39    of their performance. Loss in decisive kicks from penalty mark by a team  
40    acclaimed as a technically better side, according to performane evaluation may  
41    be attributed to the impression that its outcome is dependent on luck. Therefore,  
42    the Researchers disputed the assumption. Therefore, the conclusion that kicks  
43    from penalty mark outcomes depend on luck is irrational and illogical.

44    It is pertinent for team handlers to create an enabling psychological  
45    environment with a view to predicting and determining its outcome in favour of  
46    their teams, and for players to cope. This corroborated the findings of Haggins

1 (2000), where he noted that the most important factor for prediction of outcomes of  
 2 kicks from penalty mark is to adequately prepare selected players for the tasks.  
 3 According to Jordet and Elferink (2012), the period before the commencement of  
 4 penalty kicks after the expiration of extra time is a critical moment when players  
 5 manifest the effects of their views on the tie breaker, being a stressor as a result of  
 6 lack of perceived psychological support Psychological interventions administered  
 7 in this study assisted the participants, thereby reducing the anxiousness experienced  
 8 by players when included in decisive penalty kicks. However, the researchers could  
 9 not determine other internal and personal intervening variables the participants  
 10 experienced during the study. Also, research findings established the need for team  
 11 managers to identify players who are likely to manifest chronic anxiety. Therefore,  
 12 team handlers have to be intentional about inclusion of mental skills interventions  
 13 during training sessions.

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

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

33

34

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

36

37 The independent variables of rational emotive behavioural therapy and  
 38 positive self-talk accounted for the variation observed in the dependent variable  
 39 of kicks from penalty mark among the participants. Findings from the study  
 40 revealed that irrational beliefs and thoughts of the participants accounted for  
 41 pressure and anxiety they experienced when included in decisive penalty kicks.  
 42 The study indicated that the participants perceived kicks from penalty mark  
 43 outcomes as a form of lottery, the probability of the result of it, being dependent  
 44 on the lucky team. This impression informed their thoughts formation which  
 45 made them to have some internal deliberations about their doubts for positive  
 46 outcomes of kicks from penalty mark. For example, some of the players were

1 thinking about the disappointments and feelings of failure they and their teams  
 2 were likely to be exposed to, if they fail to convert their penalty kicks. In  
 3 addition, some of them wanted to convert their kicks at all cost, thereby  
 4 increasing their arousal and anxiety beyond optimal level.

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

33

34

## 35 Conclusion

36

37 The study investigated effects of rational emotive behaviour therapy and  
 38 positive self-talk on the outcomes of kicks from penalty mark among university  
 39 football players in Southwestern Nigeria. Kicks from penalty mark, presumed  
 40 anxiety motivated skill, are crucial part of football tournaments. Its outcomes  
 41 when used as tie breaker is often termed ‘lottery result’, attributing luck, apart  
 42 from players’ kicking ability, as determining the fate of a football team. the  
 43 impression that kicks from penalty mark is dependent on luck could increase  
 44 anxiety, reduce capability perception and negatively influence performance  
 45 behaviour of penalty kickers.

1 Therefore, it is important that players are given adequate time for mental  
2 rehearsal before competing in football tournaments, where the possibilities of  
3 enforcin penalty kicks for tie breaking cannot be ruled out. The study  
4 hypothesizes provision of structured, effective, specific and result oriented  
5 interventions, designed within the confines of psychological experiences the  
6 players are likely to be exposed to during penalty kicks. The independent  
7 variables of REBT and PSt as the interventions for the study were manipulated  
8 on the dependent variable of outcomes of kicks from penalty mark. There were  
9 two moderating variables of playing experience and players' positions for the  
10 study. The study revealed a significant main effect of rational emotive behaviour  
11 therapy and positive self-talk on the outcome variable. The participants in the  
12 REBT group had the highest post mean score than those in PSt and control  
13 groups. There was a significant interaction effect of treatment on playing  
14 experience. The players with long playing experience had a higher mean score  
15 than those with low playing experience. Therefore, REBT and PSt therapies  
16 should be used as psychological interventions and coping resources for football  
17 players for a more predictable kicks from penalty mark outcomes.

18

19

## 20 **Recommendations**

21

- 22 1. Outcomes of kicks from penalty mark in football tournaments are  
23 associated with pressure and anxiety. Therefore, penalty kickers should  
24 be equipped with psychological coping resources to cater for arousal and  
25 anxiety beyond optimal level.
- 26 2. Based on the significant effects of rational emotive behaviour therapy  
27 and positive self-talk therapies on kicks from penalty mark, it is therefore  
28 recommended that they should be used as psychological interventions  
29 and coping resources for penalty kickers.
- 30 3. Team managers should determine players who are psychologically  
31 prepared and ready to manage associated pressure of kicks from penalty  
32 mark.
- 33 4. Team handlers should select more experienced football players for  
34 penalty kicks and consideration should be given to mid field players than  
35 forward (attacking) and defensive players.
- 36 5. Team handlers should always dispute the perception among football  
37 players that outcomes of kicks from penalty mark are dependent on luck  
38 because there is no universal law that establishes this. Findings of the  
39 study has established that can be dependent on psychological skills.

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1    **References**

2

3    Dryden, W., & Branch, R. 2008. The fundamentals of rational-emotive behavior  
4    therapy. A Training Handbook, second edition. West Sussex: Wiley.

5    Ekechukwu. R.O. & Onyekuru B.U. 2014, New Dawn In Counselling Psychology, In  
6    school and Non school Setting. Owerri. Career Publishers.

7    Ellis, A. 2003. Early theories and practices of rational emotive behaviour theory and  
8    how they have been augmented and revised during the last three decades. *Journal  
9    of Rational-Emotive & Cognitive-Behaviour*.

10    Ellis, Albert, and Dryden, W. 2007 Therapy. The Practice of Rational Emotive  
11    Behavioural Therapy, 2nd ed. New-York: Springer Publishing Company.

12    Greg, W., Jordet, G., & Mark, R. 2015: On winning the “lottery”: psychological  
13    preparation for football penalty shoot-outs, *Journal of Sports Sciences*.

14    Hardy, J., & Hall, C. R. 2006. Exploring coaches’ promotion of athlete self-talk.  
15    *Hellenic Journal of Psychology*, 3, 150–163.

16    Hatzigeorgiadis, A., Zourbanos, N., Galanis, E. & Theodorakis, Y. 2011. Self-talk and  
17    sports performance: A meta-analysis. Perspectives and Psychological Science, 6,  
18    348-356-0019-5.

19    Jordet, G., Hartman, E., Visscher, C., & Lemmink, K. A. P. M. 2007. Kicks from the  
20    penalty mark in soccer: The roles of stress, skill, and fatigue for kick  
21    outcomes. *Journal of Sports Sciences*.

22    Jordet, G. 2009. When superstars flop: Public status and choking under pressure in  
23    international soccer penalty shootouts. *Journal of Applied Sports Psychology*, 21,  
24    125-130.

25    Jordet, G. & Elferink-Gemser, M.T. 2012. Stress, coping, and emotions on the world  
26    stage: The experience of participating in a major soccer tournament penalty  
27    shootout. *Journal of Applied Sport Psychology*, 24, 73-91.

28    MacInnes, D. 2004. The theories underpinning rational emotive behavior therapy:  
29    Where’s the supportive evidence? *International Journal of Nursing Studies*, 41,  
30    685-695. doi:10.1016/j.ijnurstu.2004.02.004.

31    Olaoye, O.P and Fadoju A.O. 2021. Perceived Determinants of Kicks from Penalty  
32    Mark Outcomes among Football Players- Psychological Implications. Journal of  
33    Human Kinetics and Health Education, Lagos State University.

34    Olaoye, O.P. 2022 Unpublished Thesis titled ‘Effects of Rational Emotive Behaviour  
35    Therapy and Positive Self-talk on Kicks from Penalty Mark among University  
36    Football Players in Southwest Nigeria, presented at Post graduate doctoral  
37    defence on January 11, 2022.

38    Palacios-Huerta, I. 2003. Professionals play minimax. *Review of Economic Studies*,  
39    70(2), 395\_415. doi:10.1111/1467-937X.00249.

40    Spencer, S. 2005, Rational Emotive Behavior Therapy: Its effectiveness with children,  
41    A Research Paper submitted in Partial Fulfillment of the Requirements for the  
42    Master of Science Degree in Guidance and Counseling. The Graduate School,  
43    University of Wisconsin – Stout, December, 2005.

44    Thompson, P., H. & Brown, D. T. 2007. Counselling and Psychotherapy with Children  
45    and Adolescents: Theory and Practice for School and Clinical Settings. 4th Ed.,  
46    Clinical Psychology Publishing Company.

47    Williams, J. M., & Straub, W. F. 2006. Sport psychology: Past, present, future. In J. M.  
48    Williams (Ed.), *Applied sport psychology. Personal growth to peak performance*  
49    (5th ed., pp. 1–14). Boston: McGraw-Hill.: Yasnitsky, A., van der Veer, R., &

1                   Ferrari, M. 2014. *The Cambridge handbook of cultural-historical psychology*.  
2                   Cambridge, U.K.: Cambridge University Press.

3                   Olaoye, O.P and Fadoju A.O. 2021. Perceived Determinants of Kicks from Penalty  
4                   Mark Outcomes among Football Players- Psychological Implications. Journal of  
5                   Human Kinetics and Health Education, Lagos State University.

6                   Olaoye, O.P. 2022 Unpublished Thesis titled 'Effects of Rational Emotive Behaviour  
7                   Therapy and Positive Self-talk on Kicks from Penalty Mark among University  
8                   Football Players in Southwest Nigeria, presented at Post graduate doctoral  
9                   defence on January 11, 2022.

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