

Developing and validating standard levels of psychological barriers in  
football players

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**Abstract**

**Background:** The researchers conducted this study after noticing that coaches did not pay enough attention to the importance of psychological criteria during sports selection and did not determine the level of development of players' performance, either during training sessions or afterwards.

**Aim:** The aim of this study was to develop standard levels of "psychological barriers" for football players in the Kurdistan Region of Iraq.

**Method:** The Psychological Barriers Scale (PBS) is a 47-item questionnaire designed to assess psychological barriers in football players, use clothes can use it during sports selection, and gain a better understanding of player performance. For the sake of the assessment of the internal liability and validity construction (N= 113), the descriptive approach is employed in the current work.

**Results:** Cronbach's alpha was determined to be 0.907, and the Spearman-Brown coefficient was determined to be 0.880. These values exceed (0.70), indicating the stability of the PBS scale is. Furthermore, the Psychological Barriers Scale's average approval rate was statistically significant.

**Conclusions:** The Psychological Barriers Scale (PBS) is a reliable instrument that could be used to assess psychological barriers. It is also recommended that football coaches at sports clubs pay more attention to the use of the psychological barriers scale in sport selection and for evaluation players' performance proses in.

**Keywords:** Psychological Barriers, Football Players, Sport Selection, Psychological Barriers Scale

## Introduction

Athlete mental health issues caused by competition have not received enough attention from psychological health education staff due to its abstractness and the staff being more concerned about the concrete aspects and materialistic results of sports in general. The psychological aspect of the athletes must be given priority due to its implicitness, self-influence, and potential hazards. The psychological barriers imposed on athletes by competition not only have a direct impact on their performance, but they also have a negative influence on their physical and mental health. Athletes' competition psychological barriers refer to the athletes' abnormal state of mind during the competition, such as anxiety, thinking ability weakened, self-confidence decline, loss of self-control and strain ability, displaying pessimism, inability to adapt to changing situations, fear, indifference, and timidity (Li, 2013). Stress can impede athletes' performance and decision making in the crucial moment. They need to know that stress is a normal reaction towards an abnormal event and it must be controlled and dealt well to have a better mindset. According to Li, 2013, athletes' competition psychological barriers can be divided to motivation obstacles, mood disorders, psychological saturation obstacles, against obstacles.

The first Motivation Obstacles, lower motivation levels may result in athletes' bodies being in a state of hypo - arousal during competition; athletes are unable to fully mobilize their enthusiasm, initiative, and are relatively tired and fatigue. Therefore, the athlete is unable to fully mobilize their mental energy, which results in insufficient play of potential functions and athletes' low performance in competition Knight and P. Zukiwski (2012). The second component is mood disorder, mood disorder refers to the difficulties associated with the intensity and duration of emotional reactions. In the analysis of the psychological factors that influence athletes' competition performance, it was discovered that excessive tension and anxiety most easily influenced athletes' moods Lopez and Levy, (2013).

Third component was psychological saturation obstacles, Psychological saturation occurs when is outside his window of tolerance whether in the state of hyper-arousal or hypo- arousal. People who have reached psychological saturation and are already exhausted do not want to continue a task. Psychological consultation has reached its limit at this time (Li, 2013). The reason for athletes' psychological saturation is that they require a long period of training prior to the competition. During this time, athletes must eliminate distractions, focus on training, and consume a lot of manual labor as well as a lot of mental energy. If this fatigue state is not relieved prior to the competition, it will result in an athlete's psychological saturation in competition, escape, and tiredness of playing. There must be a ventilation of the athletes' anxiety and stress otherwise they will be in the fight and

flight state, being away from their balanced state. This type of psychological state would have a negative impact on competition, reducing motivation for the training and competition, and forming a counterforce impact on athletes' performance (Schaal et al. 2011).

The last components were against the obstacles, they refer to a strong aggression personality disorder, in which they do not directly perform negative emotions, but rather, on the surface of obedience, covert perfunctory non-cooperation. It is difficult to find a happy medium between strong compliance, conflict, and hostility. The main characteristic of people who face personality challenges is that they use negative, bad, and covert methods to express their dissatisfaction. Athletes' aggression is an important psychological characteristic and behavior in competition. During the competition, the athlete treated rivals as a target and was in full aggressive mode. Athletes' attack desire is frequently thwarted by the restraint of specific contest rules; if this attack impulse is not vented and released, they will bring attack desire after the contest; this type of abnormal psychological barrier is detrimental to competition, training, and normal life (Chunri, 2006).

The national policy began to break down the logistical and psychological barriers that existed in sports. Many studies (Desouky 1995, Wylleman 2004; Harash and Karpenko 2005; Samygin et al. 2015; Bugaev, Popova, Savinkova 2019) have shown that psychological barriers can lead to negative emotions, negative mindsets, lack of confidence, fatigue, low self-esteem, anxiety, shame, and sleep disorders. In this context, there are numerous manifestations of psychological barriers that plague the athlete during actual participation in local sports competitions, which can affect the level of his performance. Anxiety, poor ability to focus and think, lack of self-control, inconsistency with changing situations, , and suboptimal arousal are some of the most prominent manifestations (Holt NL et al. 2012). According to this viewpoint, psychological barriers are a state that arises in an individual as a result of various stimuli that may impede his goals and compatibility (Saeed and Hani, 2019). Mind and body are the two main dimensions that must be considered in professional athleticism and physical activities Bardhan and Nimkar (2020). According to Passenger (1981), mental health was not a priority for both athletes and coaches. In other words, sport psychology was not used with athletes as a kinetic movement to improve their performance. Thus, paying attention to athletes' mental states is important in order to teach athletes what behavior to expect in specific situations. This resulted in increased competitive success and the practice of physical exercise in a healthy environment in sports organizations. Therefore, sport psychology can provide a valuable strategy in dealing with athletes' attitudes towards themselves , the obstacles they face, and the how to deal with the rivals.

According to Bardhan and Nimkar (2020) , sports activities, whether for competition or for entertainment, contain reactions. As a result, sports psychologists can use various psychological toolkits to analyze, describe, modify, and predict healthy behavior. Sport psychology is important because it provides psychological techniques for coping with emotional issues during physical performance. Furthermore, using sport psychology during competitive sports is intended to enlighten athletes' behavior and attitudes Côté and Thomas (2009). Furthermore, the influence of sport psychology can be observed outside of the field of play; for example, athletes' day-to-day activities that will support athletes' performance Al-Kashef's (1991).

The aforementioned discussion may have a negative impact on football players and impede their performance. In this vein, there are no reliable measurements for assessing test and psychological variables in football players. Furthermore, there are no standard levels of the psychological barriers scale that can be used to determine football players' performance. Developing these standard levels for football players is beneficial for identifying and overcoming the weaknesses of the players' reliable assessment. Following up on the player's progress during the various preparation periods and adjusting the training program based on the results of these measurements are also important.

The researchers conducted this study because they noticed that coaches were not paying attention to the importance of psychological criteria during sports selection, and they did not determine the level of development of players' performance, whether during training sessions or during follow-up. The study's aim was to determine the standard levels of psychological barriers for football players in Iraq's Kurdistan region.

## Materials and Methods

### Participants

A total of 40 football players were chosen for the pilot study. The reasons for this were: first, the players were from the first league football in the Kurdistan Region of Iraq (KRG). Second, the players were chosen from the Premier League and the KRG national team. Third, the players were trained on a regular basis for three years. Finally, no participant was dropped from this study. The research sample consisted of (113) football players. All participants read the participant information sheet and signed the consent form.

### Procedure

The study has received ethical approval from the Faculty of Physical Education for Men at Alexandria University in Egypt. The survey tool's descriptive approach was used as a convenient method to achieve the aims of the study. The Psychological Barriers Scale (PBS), which includes 47 phrases, was used as an assessment tool. PBS was presented to a group of experts who determined the scales' validity and stability. It should be noted that PBS was distributed electronically to experts. Due to the Corona pandemic, the players' attitudes were also collected electronically. To ensure the PBS's validity, it was presented to eleven experts in the Arab Republic of Egypt as well as the Kurdistan Region of Iraq. A total of 75% of the expert's sights were obtained.

## Results and Discussion

All data were calculated using the (Mean, Standard Deviation, T-test for two different groups, Percentage percent, Cronbach's Alpha coefficient, Spearman-Brown Coefficient Percentile Levels, and Thorndike T-Score). Table (1) showed the reliability of the PBS in this study by calculating the Cronbach's total alpha coefficient for the scale, the Spearman-Brown coefficient, and the Cronbach's alpha coefficient after removing the phrase from the PBS. The results show that the total were Cronbach coefficient, Spearman-Brown coefficient, and the alpha Cronbach coefficient after deleting the phrase in PBS, the values of Cronbach's alpha after deleting the phrase ranged between (0.899 to 0.910), the values of the Cronbach's alpha coefficient reached 0.907, and the value of the Spearman-Brown coefficient was 0.880. These values are greater than (0.70), which indicates the stability of the PBS scale. Furthermore, the results show the statistical significance of the average approval rate for the Psychological Barriers Scale in the table (2). In table (3) the PBS reaches the raw score (124.4) and corresponds to the 10<sup>th</sup> percentile level, while the raw score (184) corresponds to the percentile level (90), while the raw score (150) corresponds to the percentile level (50). The results of the last table (4)

revealed that values were extracted by obtaining the raw score of sample members and its equivalent in the table's last field, which represents the indicator's score extracted after adjusting the standard scores according to Thorndike's equation =  $((Z\text{-degree} \times 10) + 50)$  to identify the standard levels.

Table (1): shows Cronbach's total alpha coefficient for the scale, the Spearman-Brown coefficient of the scale, and Cronbach's alpha coefficient after deleting the phrase from the psychological barriers scale. n=40

No	Phrase	Cronbach's alpha coefficient after deleting the phrase	Cronbach's total alpha coefficient	Spearman-Brown coefficient
1	I trust my physical ability to compete	0.908	0.907 *	0.880*
2	I get blamed by the coach if I do not complete the training tasks that are assigned to me	0.904		
3	My confidence in my acceptance declines when there is more encouragement from the opponent's fans	0.905		
4	I can solve my problems on my own	0.909		
5	I hesitate when I feel I lack skill in training and competition	0.903		
6	My self-confidence drops in critical times	0.903		
7	I can continue competing even when I fail to perform against a strong opponent	0.907		
8	I feel that fear of failure increases as the competition is approaching	0.902		
9	I suggest to my coaches some opinions that raise the level of my performance in the competition	0.908		

No	Phrase	Cronbach's alpha coefficient after deleting the phrase	Cronbach's total alpha coefficient	Spearman-Brown coefficient
10	It annoys me when I get criticism in public on my level of competition.	0.904		
11	I am subjected to training loads above my training capabilities	0.906		
12	I feel more nervous before entering the competition	0.903		
13	I get worried when I think about the importance of the competition	0.902		
14	I blame myself if I do not win the competition	0.907		
15	I can handle the daily training load	0.909		
16	I feel scared and confused when facing a strong opponent	0.901		
17	I feel upset when the club management takes sides with some players	0.905		
18	I find it difficult to perform my training duties due to poor basic training requirements	0.904		
19	I refuse to deal with my fellow players in training and competition	0.902		
20	I find it difficult to adapt to the training environment due to its different conditions	0.906		
21	I feel unaccepted by some players	0.901		
22	I easily integrate with fellow players in the competition	0.908		
23	Training and competing in bad	0.906		

No	Phrase	Cronbach's alpha coefficient after deleting the phrase	Cronbach 's total alpha coefficie nt	Spearman- Brown coefficient
	weather negatively affect my performance			
24	I fail to achieve an athletic achievement that I have accomplished before	0.902		
25	It is hard for me to control my emotions if I get angry	0.907		
26	I feel very fit when facing a strong opponent	0.910		
27	I want to quit before the competition starts	0.899		
28	I expect to lose in the match because the coach does not support me	0.901		
29	I rely on myself to achieve my goals	0.910		
30	I get angry if the competition events do not go right	0.905		
31	I keep my nerves when mistakes happen before the competition	0.909		
32	I continue to compete with the same vitality and vigor despite the most difficult circumstances	0.910		
33	I respect the rules and laws because they guide and protect me	0.909		
34	I can quickly organize my thoughts in competition	0.908		
35	I think I am very moody in training and competition	0.902		



No	Phrase	Cronbach's alpha coefficient after deleting the phrase	Cronbach's total alpha coefficient	Spearman-Brown coefficient
36	I think positively when I suffer defeat so that mistakes are not repeated	0.908		
37	I have bad luck in the competition	0.902		
38	Negative thoughts come to my mind when I feel defeated	0.908		
39	I expect to lose in any competition I participate in	0.902		
40	I feel that I am unable to make appropriate decisions about the various situations of the competition	0.902		
41	I expect my failure to take advantage of opportunities to win during the competition	0.902		
42	I despair when unpleasant results are repeated for me in competition	0.907		
43	I become tender fast	0.904		
44	I feel hesitant when I make an important decision	0.908		
45	I depend on others in some of my life matters	0.900		
46	I find it easy to hurt my feelings because of my weakness	0.902		
47	I feel that I look unacceptable socially	0.903		

*\*The tabular value (t) is significant at the level of 0.05 = 0.304*

Table (2): shows the statistical description of the psychological barriers scale.

The statistical description	Range	Least value	Greatest value	Mean	Standard deviation	Number of phrases	Weighted mean	Approval percentage
psychological barriers	104.0	107.0	211.0	153.0	22.6	47	3.27	65.46%

Table (3): Shows the percentile levels of the psychological barriers scale.

the scale		psychological barriers
Mean		153.82
Median		150.0
standard deviation		22.6
Percentile Levels	10	124.4
	20	132.0
	30	136.5
	40	139.0
	50	146.0
	60	150.0
	70	161.8
	75	167.0
	80	170.5
	90	184.0

Table (4): the raw scores, the standard Z-score, and the standard T-score ranked ascendingly for the psychological barriers scale.

Score	Standard Z score	Standard T Score
107	-2.07	29.28
116	-1.67	33.27
118	-1.58	34.15
119	-1.54	34.59
121	-1.45	35.48
124	-1.32	36.80
125	-1.28	37.25
126	-1.23	37.69
127	-1.19	38.13
128	-1.14	38.57
129	-1.10	39.02
130	-1.05	39.46
131	-1.01	39.90
132	-0.97	40.34
134	-0.88	41.23
135	-0.83	41.67
136	-0.79	42.11
137	-0.74	42.56
138	-0.70	43.00
139	-0.66	43.44
140	-0.61	43.88
141	-0.57	44.33
142	-0.52	44.77
146	-0.35	46.54
147	-0.30	46.98
148	-0.26	47.42
149	-0.21	47.87
150	-0.17	48.31
153	-0.04	49.64
154	0.01	50.08
155	0.05	50.52
157	0.14	51.41
161	0.32	53.18
163	0.41	54.06
164	0.45	54.50

Score	Standard Z score	Standard T Score
165	0.49	54.95
166	0.54	55.39
167	0.58	55.83
169	0.67	56.72
170	0.72	57.16
171	0.76	57.60
172	0.80	58.04
173	0.85	58.48
175	0.94	59.37
176	0.98	59.81
178	1.07	60.70
180	1.16	61.58
181	1.20	62.02
183	1.29	62.91
184	1.34	63.35
190	1.60	66.01
191	1.64	66.45
193	1.73	67.33
199	2.00	69.99
211	2.53	75.30

## Discussion

The structure and psychometric properties of the PBS, a newly developed scale to measure PBS in football, were evaluated in this study. This study yielded a promising result. The psychological barriers scale reached the raw score (124.40), which corresponded to the 10th percentile level, while the raw score (184) corresponded to the percentile level (90), and the raw score (150) corresponded to the percentile level (90). (50). Furthermore, the highest standard degree obtained (2.53) corresponded to the raw score (211), while the medium standard score obtained (-0.57) corresponded to the raw score (141) and the percentage obtained (70.77 percent), and the low standard score obtained (-2.07) corresponded to the raw score (141). (107).

In this vein, the findings suggest that reaching the standard levels of the psychological barriers scale is possible. The results showed that there are three standard levels (high-medium-low) and their corresponding raw scores, providing a statistical indication of the standard levels in terms of percentile order. The current finding is consistent with Shukair's research (2002). All of the correlation coefficient values between the degrees of the scale's dimensions and its total degree are significant at the (0.01) level. The majority of these correlations have extremely high

values, whether they are between sub-scale dimensions, between them, or between them and the total degree of the scale.

These findings essentially confirm that these dimensions can be used to measure psychological barriers in light of the theoretical framework on which the scale is based, and they provide evidence of validity and stability. Based on the findings discussed above, it is possible to achieve standard levels of psychological barriers. As a result, it is strongly advised that football coaches at sports clubs pay more attention to the use of the psychological barriers scale. Additionally, coaches are preparing seminars, training courses, and programs to raise awareness of the importance of psychological barriers and how to overcome them. Furthermore, persuading the boards of directors of sports clubs of the importance of overcoming psychological barriers because of its role in raising morale and achieving the highest level of achievement and progress in both the club and the team. Finally, seeking long-term guidance programs within clubs would help players overcome psychological barriers.

The Psychological Barriers Scale (PBS) is reliable and could be used to assess Psychological Barriers. This scale may also aid coaches in understanding player performance, particularly during sports selection. According to Wankel and Berger (2018) and Dubovitskaya et al. (2020), it is critical to investigate the effects of psychological barriers in burnout prevention, psychological support, mental training,

the contribution of sport and physical activity, and personal enjoyment and social integration. The lack of research in this area should encourage researchers to conduct scientific research on psychological barriers that become an impediment for football players.

#### Conclusion

To the best of our knowledge, this is the first study to establish standard levels of psychological barriers. Thus, the Psychological Barriers Scale (PBS) will aid in assessing psychological barriers in football players. Furthermore, PBS can assist researchers and scholars who are working in sports selection and with football players. PBS is reliable and could be useful in assessing psychological barriers. Furthermore, it is recommended that football coaches at sports clubs pay close attention to using the psychological barriers scale.

#### Acknowledgments

The authors would like to thank all players who participated in this study. In addition, special thanks to all Football Clubs for their support. Our gratitude is also extended to all staff at the Faculty of Physical Education for Men, Alexandria University for their support. The same for all staff at College of Physical Education and Sport Science, University of Duhok, for their support.

#### Conflict of Interest

The authors report no declarations of interest.

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