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RESEARCH ARTICLE

Triplet Racket Sports (Tennis, Badminton, and Table Tennis): Athletic Affiliation from the Perspective of Players

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Abstract

This study investigated athletic Affiliation among male and female racket sports players (tennis, table tennis, and badminton). Athletic Affiliation Scale designed by (El-Shahat, 2021). The problem of the study comes from the extent to which players are affiliated with these sports. The researchers identified the scientific foundations of the scale. After verifying its validity, a random sample was selected from the Baghdad Governorate, including (49) players for the main experiment and (10) players for the pilot sample, distributed among the three sports from the original community 140 players (male and female) registered in the official federations of the games. The researchers adopted a descriptive approach using the survey method. Statistical results showed that players had Affiliation with the sport, and badminton players' degree of Affiliation was higher than tennis and table tennis players.

Keywords: Athletic affiliation, Tennis, Badminton, Table tennis

1. Introduction

Affiliation is considered one of the critical human psychological and social needs that an individual seeks to achieve, and it can be interpreted as one of the motives formed through friendship and social relationships. Affiliation is a basic human need for the individual and society because it includes the exchange of experiences, convergence, trust, appreciation, support, assistance, and it is a driving force, participation, and perseverance [Manal Abdel Khaleq: 11, p. 9]. Affiliation is an individual's feeling that individual united with the group or accepted in it, and any individual's desire to collaborate with another individual or group [Alaouna Rabia: 24, p. 5]. Affiliation is an essential value that urges responsibility and drives the individual to achieve [Rasha Muhammad Ashraf et al.: 80, p. 4]. Athletic Affiliation, as defined by Muhammad El-Shahat Ibrahim, is "a positive attitude supported by love that the player feels towards the club or team group to which he belongs, confirming the existence of a

connection and affiliation towards the club or team group as a member of them, feeling loyalty and pride towards them, cherishing their identity and uniting with them" [25, p. 5]. Affiliation in general and athletic Affiliation in particular are considered one of the most important pillars that contribute to building societies, as the more the individual's Affiliation to the institution in which he works increases, the more his enthusiasm, loyalty, and effort in the success of that institution increase [Muhammad El-Shahat 17, p. 8]. Areej Abu Nayla [67, p. 1] also explained that Affiliation creates a motive for individuals to modify their behavior to be close to the behavior of the group to which the individual belongs, but in some cases the individual is forced to sacrifice his requests and desires for the sake of the group and in order to maintain his Affiliation with this group, and he strives for the benefit of the group that achieves his personal interest because he feels connected to the group.

Sports affiliation is one of the psychological factors affecting the experience and performance of athletes,

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as it is reflected in the level of performance and their sense of collective identity. In the context of racket games (tennis, badminton and table tennis), which are characterized by their individual or bilateral character compared to team games, the question arises about the nature of sports belonging in these types of sports. Although athletic affiliation has been extensively studied in team sports, there is a research gap in the extent of athletic affiliation among tennis players, where the athlete interacts with only one teammate in some cases, or competes individually. Do players in these sports feel a sporting affiliation similar to what athletes experience in team games? Accordingly, the study seeks to determine the knowledge of the variation in the degree of belonging according to the game by answering the following questions:

- 1- What is the extent of athletic Affiliation among racket sports players (tennis, badminton, and table tennis)?
- 2- Is there a variation in the degree of Affiliation according to the sport?

The significance of this investigation stems from the enduring relevance of Affiliation as a research domain, despite its established historical roots, is considered a vital topic that needs space for sports academic studies, and it is also considered one of the latest studies that discussed the athletic Affiliation of individual sports. And highlights the research gap by questioning how variations in affiliation. The study aimed to identify the degree of athletic Affiliation among racket sports players (tennis, badminton, and table tennis) and the differences in the degree of Affiliation between players of these sports.

1.1. The study aimed to identify

- 1- The degree of sports affiliation among tennis players (tennis, badminton and table tennis)
- 2- Identify the differences in the degree of affiliation between tennis players (tennis, badminton and table tennis)

The study assumed:

- 1- There is a statistically significant positive correlation between the level of sports affiliation of players and their athletic performance in racket games.
- 2- The degrees of sports affiliation between players in games (such as tennis) and games such as badminton and table) differ statistically significantly.
- 3- There are statistically significant differences between players (tennis, badminton and table tennis) in the degree of sports affiliation.

The study hypothesized statistically significant differences between players (tennis, badminton, and table tennis) in the degree of athletic Affiliation.

The study areas included male and female racket sports players (tennis, badminton, and table tennis) in Baghdad Governorate registered in the general tennis federations, table tennis, and badminton records for 2024–2025. The study was conducted from 12/1/2024 to 2/1/2025 in the tennis court areas in the International People's Stadium, the internal hall of the College of Physical Education and Sports Sciences for Girls, and the table tennis hall in the Sports Talent Care Department in Bismayah.

2. Methodology procedures: Study population and sample

The study population included 140 players for games (tennis, badminton and table tennis) and the study sample number is (49) male and female players from Baghdad governorate registered in the federations records (tennis, badminton and table tennis) for the year (2024–2025). The study sample was selected randomly, which consisted of (10) male and female players for the exploratory procedure from the aforementioned games. The researchers used the descriptive method in the survey method to suit the study. The information was collected by reference to Arab and foreign sources. and conduct personal interviews. The sports affiliation scale (Al-Shahat, 2021) was adopted from the study (Perceived motivational climate and its relationship to psychological frustration and sports belonging to football players) [8, p 39].

3. Research procedures: Procedures for selecting the athletic affiliation scale

The researchers adopted the athletic affiliation scale prepared by (Muhammad El-Shahat Ibrahim, 2021), which includes (84) items. After presenting it to a group of experts, they were asked to do the following:

1. Judge the appropriateness of the answer alternatives.
2. Judge the extent of the suitability and validity of the paragraphs to measure what it was developed for. Judge the extent of its suitability and validity of the paragraphs to measure what it was developed for.
3. Make any appropriate modifications, deletions, and mergers to the paragraphs to increase accuracy and verify validity.

The 84 scale items were modified after being presented to a group of experts and specialists in general

psychology and sports psychology (as in [Appendix No. 4](#)) to evaluate and judge it in terms of phrasing or validity in the athletic affiliation scale. The order was placed on the answer alternatives of numbers, and each of them was left free to modify all scale items to express their opinions and suggestions on the paragraphs and the extent of their suitability to measure athletic Affiliation. In its initial form, the scale included two factors: the team affiliation factor and the club affiliation factor, and the scale items consisted of (84 items).

- The first factor, Team affiliation, included (39) phrases indicating team affiliation.
- The second factor, Club affiliation, included (45) phrases indicating club affiliation. The second factor: Club affiliation included (45) phrases indicating club affiliation.

The five-point Likert scale was used to answer the scale statements with one of the following options (always, often, sometimes, rarely, never). The subject gets (5-4-3-2-1) points for positive statements and (1-2-3-4-5) points for statements formulated in the negative direction.

The study examines the athlete's Affiliation with individual sports. It does not discuss the athlete's Affiliation with the club because the scale prepared statistics for the team and the club separately, and the results for each factor differ. Because the study only needs a team athletic affiliation scale, the experts and specialists agreed to delete all the phrases related to club affiliation and keep the phrases related to team affiliation, replacing the word (team) with the word (sport). After the experts and specialists agreed (100%) on the scale, the field research procedures were carried out using the scale after it was modified. The pilot experiment was conducted on (10) players distributed among tennis, table tennis, and badminton, and it was conducted on Sunday, 12/1/2024. The experiment's objectives were to determine the difficulties facing the researchers, the extent of understanding of the scale and test items by the research sample, and to identify the time it takes to apply the scale and extract the coefficient of stability.

As a result of the pilot experiment, the scale items were clear to the players, and the stability coefficient was extracted.

The scientific foundations of the athletic affiliation scale are:

- First: Validity: Validity is one of the most essential conditions for a good test, as a valid test succeeds in measuring what it was developed for. To determine the scale's validity, the researchers used content validity by presenting

the athletic affiliation scale to a group of experts who all agreed on the scale's validity (2021 AD).

- Second: Reliability: The reliability of the test is that the test gives the same results if the test is repeated on the same individuals and under the same circumstances. Based on this, the researchers applied the athletic affiliation scale to players on 12/1/2024 to a sample of the research community and calculated the results. After (14) days, the test was repeated on the same sample and under the same circumstances, as the results showed that the scale had a high degree of reliability.

In the main experiment, The athletic affiliation scale was applied to the sample's individuals, numbering (49) players, on (1/16/2024).

Statistical Means: The researchers used the Statistical Package for Social Sciences (SPSS) version seventeen to process the raw scores to extract the following statistical

- 1- Arithmetic mean
- 2- Standard deviation.
- 3- Torsion coefficient
- 4- T-value
- 5- Analysis of variance

4. Results

The results came according to the details shown in the following tables:

Table 1. Shows the arithmetic means, standard deviations, and values of skewness coefficients for the research groups in the athletic affiliation scale.

Group	Number	Arithmetic Mean	Standard Deviation	Skewness Coefficient
Tennis Players	16	122.38	14.67	-0.43
Badminton Players	17	135.41	12.88	0.22
Table Tennis Players	16	118.56	15.23	0.31

Table 1 shows that the data for the athletic affiliation scale for the research groups were distributed normally, as the skewness coefficient was between (-1).

Table 2 shows significant differences between the arithmetic mean and the hypothetical means in favor of the arithmetic means, and this indicates that the study samples for the sports (tennis, badminton, and table tennis) have athletic Affiliation. Athletic Affiliation is a positive attitude supported by love that the player feels towards the team group or the sport to which he belongs, confirming the existence of a connection and Affiliation towards the team group or the sport as a member of the team or the sport, and feels pride and loyalty towards them and cherishes

Table 2. Shows the calculated (t) values for the significance of the differences between the arithmetic and hypothetical mean for the athletic affiliation scale.

Group	Arithmetic Mean	Hypothetical Mean	(t) Value	Degrees of Freedom	Significance Level (Sig)	Significance
Tennis Players	122.38	82	11.25	15	0.000	Significant
Badminton Players	135.41	82	16.89	16	0.000	Significant
Table Tennis Players	118.56	82	9.78	15	0.000	Significant

*Significant if Sig \leq 0.05.

Table 3. Shows the (F) values of the analysis of variance between the arithmetic means of the research groups in athletic Affiliation.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Squares	(F) Value	Significance Level (Sig)	Significance
Between Groups	3248.52	2	1624.26	7.22	0.002	Significant
Within Groups	9984.75	44	226.93			
Total	13233.27	46				

Significant if Sig \geq 0.05.

Table 4. Shows the LSD values between the research groups in athletic affiliation.

Group	Other Group	LSD Value	Significance Level
Tennis Players	Badminton Players	–13.03	0.021
	Table Tennis Players	3.81	0.641
Badminton Players	Table Tennis Players	16.84	0.005

their identity and unites with them, and is busy and concerned with their issues and is aware and aware of their problems and is committed to the laws, standards, and values that raise their status and advance them, taking into account their public good and encouraging and contributing to the collective actions that concern the sport and interacting with the majority in an interactive framework with everyone and making a high level of effort to achieve the goals of the sport and does not abandon his group even if the crises and circumstances intensify, regardless of the financial return [10, p. 30].

The researchers attribute this result to their communication with sports colleagues, paying attention to following news about the sport and the latest developments in the game, the presence of assistance between players during training, encouraging players among themselves to participate in sports festivals, their responsibility during the game, and, most importantly, they have goals that are consistent with the objectives of the game.

Table 3 shows that there are significant differences in the degree of Affiliation between the research groups (tennis players, badminton players, and table tennis players), as the Sig value was \geq 0.05, which indicates a variation in the degree of athletic Affiliation between players of these games. To identify the superiority of the groups in athletic Affiliation, the researcher used the LSD test Table 4.

Table 4 shows the superiority of badminton players, as they had a higher degree of Affiliation than table tennis players and tennis players.

As for the difference between table tennis and tennis players, there are no differences between them, as they were at a similar level.

The researchers attribute this to the fact that the more the player's Affiliation with his sport increases, the more his enthusiasm, loyalty, and dedication to the success of that sport increases, and this is reflected in the performance and achievement of the player's goals to reach advanced positions and achieve accomplishments in sports competitions.

5. Discussion of results

By reviewing the previous tables, which show the existence of statistically significant differences between the members of the research sample, and this indicates that the members of the study samples enjoy the games (tennis, badminton and table tennis) with sports affiliation, and sports affiliation is: a positive trend supported by love felt by the player towards the group of the team or game to which he belongs, confirming the existence of a link and affiliation towards the group of the team or game, as a member of the team or game, as he feels proud and loyal towards them and cherishes their identity and unites with them, and concerned with their issues, aware and

aware of their problems, committed to the laws, standards and values that raise their status and promote them, taking into account the common interest of them, encouraging and contributing to the collective work of the game, interacting with the majority in an interactive framework with everyone, exerting a high level of effort to achieve the goals of the game, and not abandoning his group even if they are intensified by crises and circumstances, regardless of the material return [Al-Shaahat: 25, p. 8]. [Table 4](#) shows the advantage of badminton players, as they had Higher degree of affiliation than table tennis players and tennis players. As for the difference between the players of table tennis and tennis, there are no differences between them, as they were in a similar degree. The researchers attribute this to the fact that the more the player belongs to the game, the more enthusiasm, sincerity and dedication to the success of that game he practices, and this is reflected in the performance and achievement of the player's goals to reach advanced positions and achieve achievements in sports competitions. As al-dhabaa [38, p. 6] emphasizes that belonging is linked to the existence of the total, whose members share the standards, values, beliefs, motives and customs that characterize the behavior of its members, it is natural for the son to feel belonging to his family, and the student to belong to his school and the athlete to his club, and that these individuals are united by a common destiny, goals and interests of one who move in the direction of achieving them, and in that individuals are determined by certain social roles and status, and there is social interaction between them through communication and explicit relationships that may be environmental, political or economic. Or ethnic. Because belonging in its simple sense means association, harmony and faith with the Belonger, belonging as a concept belongs to the psychosocial concepts and means approaching and enjoying cooperation or exchange with the other, when the individual joins the group he often finds himself, forced to sacrifice many of his own demands and desires in order to obtain social acceptance from the members of the group and find him keeping pace with the group and its laws and traditions, so the individual unites with the group and sees the group and performs its work effectively. It is as if it is an extension of himself who seeks her interest, makes every effort to raise her status, feels victorious if she wins, or safe whenever she becomes safe [Afnan: 30, p. 2]. This has been shown [Khudair and Mahdi: 48, p. 3] as it was explained that belonging is a vital element in achieving goals, enhancing stability and confidence and contributes to the development of the institution's capabilities to survive and continue, and has importance and repercussions on the individual, and organizational affiliation leads to a number

of positive results for the institution and individuals and achieving goals efficiently and effectively, while the weak level of belonging leads to low satisfaction. Ghalyia pointed that "The belonging of individuals to their games is the main and important key to examining the extent of harmony and cohesion between team members with each other, as scientists believe that the repeated interactions of individuals among themselves, and the mutual relationships that are established during their cooperation strengthen their feelings and determine the course of their work as a whole, so the team had to achieve its members a sufficient level of belonging if they hope that" [4, p. 56].

Through reviewing the previous tables, which show significant statistical differences among the research sample individuals, it is indicated that the individuals in the study's samples for the sports (tennis, badminton, and table tennis) possess a sense of sports affiliation. Sports affiliation is a positive attitude supported by love, which the player feels towards the team or game they belong to, confirming an association and attachment towards the team or game. The player feels pride and loyalty, identifies with their identity, and unites with them, being concerned and aware of their issues.

[Table 4](#) shows the superiority of badminton players, as they have a higher affiliation score compared to table tennis and tennis players. However, there are no differences between table tennis and tennis players, as they have similar scores. The researchers attribute this to the fact that the more an athlete affiliates with a sport, the more their enthusiasm, loyalty, and dedication to the sport's success increase, which reflects on their performance and achievement of goals to reach advanced positions and achieve accomplishments in sports competitions.

As Al-Shaahat [25, p. 8] notes, sports affiliation is a positive attitude supported by love, which the player feels towards the team or game they belong to, confirming an association and attachment towards the team or game. The player feels pride and loyalty, identifies with their identity, and unites with them, being concerned and aware of their issues.

Affiliation is linked to the existence of a group whose members share norms, values, beliefs, motivations, and habits that distinguish their behavior. Abdul Rauf Al-Dabaa emphasizes that affiliation is related to the shared destiny, goals, and interests, which determines social roles and status for individuals. He states that it is natural for individuals to feel affiliation to their family, school, or sports team, as these groups share common goals and interests. Affiliation, as a concept, belongs to social psychological concepts and means approaching and enjoying cooperation or exchange with others. When an individual joins a

group, they often find themselves forced to sacrifice their personal demands and desires to gain social acceptance from the group members, and the individual unites with the group, seeing it as an extension of themselves, striving for its benefit and security.

Nahed Afnan [30, p. 2] explains that affiliation involves the individual's integration with the group, where they see the group as an extension of themselves. They strive for the group's benefit and security, feeling victorious when the group succeeds or secure when it becomes stable.

Studies have shown that affiliation is a vital element in achieving goals, enhancing stability and trust, and contributing to the development of an organization's capabilities to survive and persist. Hamza Abdul Hussein Khudair and Ali Maki Mahdi [48, p. 7] highlight that affiliation is crucial for achieving objectives, enhancing stability and trust, and developing an organization's capabilities to persist. It has significant implications for individuals, as organizational affiliation leads to several positive outcomes for both the organization and individuals in achieving goals efficiently and effectively. Weak affiliation levels lead to decreased satisfaction; therefore, individuals' affiliation to a particular sport is a crucial key to examining the cohesion and solidarity among team members.

6. Conclusions and recommendations

The study came to the following conclusions:

1. The more the player's Affiliation to his sport increases, the more his enthusiasm, loyalty, and dedication to that sport's success increases, which is reflected in the performance and achievement of the player's goals to reach advanced positions and achieve accomplishments in sports competitions.
2. Monitoring emerging trends and advancements in the sport through systematic engagement with contemporary developments in the game, the presence of assistance between players during training, encouraging players among themselves to participate in sports festivals, their responsibility during the game, and, most importantly, they have goals that are consistent with the objectives of the game.
3. Monitoring the athlete's psychological aspect is an essential priority.

The recommendations of the study are summarized in:

1. Strengthening athletic Affiliation by providing a positive and supportive environment,

encouraging social interaction, and meeting the needs of players.

2. Focusing on the psychological aspect: providing the necessary psychological support to help them achieve their goals and overcome challenges.
3. Developing training programs: that comes from designing training programs that aim to strengthen social bonds between players and encourage them to cooperate and support each other.
4. Conducting more research on the factors affecting athletic Affiliation among practitioners of individual sports and using diverse research methods to enhance our understanding of this concept.

This study provides valuable insights into athletic Affiliation among racket sports players and highlights the importance of this concept in enhancing athletic performance and commitment to the sport. We hope these results and recommendations will contribute to developing effective strategies to strengthen athletic Affiliation among players and improve performance and motivation levels.

Author's declaration

Conflicts of interest: None.

We confirm that all tables in this article are ours and written by the researchers.

Ethical-Clearance: this manuscript was approved by the local ethical committee of the Physical Education and Sport Sciences College for Women in (October/2024).

Author's contributions

All contributions of this study were done by the researchers (A.A. and A.S.) who get the main idea and work on writing and concluding also with number of experts, Nazik Subhi in Statistics, Ibrahim Dabayeb in revision, Inaam Ghalib in translating, Batoul Ahmed Salim in proofreading.

Facilitate the task: this study was supported by male and female racket sports players in Baghdad Governorate registered in the general tennis federations.

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A. Appendix

Table A.1. Sports affiliation scale.

Statement	Always	Often	Sometimes	Rarely	Never
1. I follow and share the problems, worries, and sorrows of my teammates in the game and seek solutions for them.					
2. Communicating with my teammates in the game through social media is not necessary.					
3. I am interested in forming new friendships with new teammates in the game.					
4. I praise the performance of my teammates in the game who contributed to winning the match.					
5. I feel uncomfortable when I am asked to solve a problem affecting my teammates in the game.					
6. I agree with my teammates' opinions in the game even if they contradict my own views and personal interests.					
7. I keep track of game news and results when I am injured and unable to participate in training.					
8. I feel uncomfortable watching my teammates exhibit inappropriate behavior within the game group.					
9. I exert maximum effort during training to achieve the game's objectives.					
10. A player should sacrifice some of their rights for the benefit of the game.					
11. I welcome helping my teammates in training to develop their individual skills.					
12. I encourage my teammates in the game to participate in sports festivals and charitable volunteer activities that support charitable goals.					
13. I discuss errors from the previous match with my teammates in the game.					
14. I accept criticism from my teammates in the game to improve and develop my personal skills.					
15. I ask my teammates in the game for help in solving problems I face in daily life.					
16. I participate with my teammates in making decisions related to the game.					
17. I get upset when I feel some teammates are not serious about the game during training.					
18. I treat my teammates' secrets in the game as my own personal secrets and do not disclose them to anyone.					
19. I feel sad when another team defeats my team.					
20. I feel annoyed and uncomfortable when I am with my teammates in the game.					
21. I make sure to attend social events for my teammates in the game.					
22. I have closer friends outside of my teammates in the game.					
23. I intervene to resolve any conflicts or disputes that arise among my teammates in the game.					
24. I react to my teammates in the game when we disagree about performance in recent matches.					
25. I accept participating in training with any teammate from the game.					
26. I am saddened if a key player is ejected by the referee during a match.					
27. I am saddened if one of the stars of my game is injured during a match.					
28. I take collective responsibility with my teammates in the game when we lose.					
29. I strive with all sincerity to contribute as much effort as possible to maintain the team's interest and stability.					
30. I feel happy and joyful when we achieve success in any tournament we play.					
31. I stand up against malicious rumors against my team.					
32. I defend my teammates in the game even when we lose.					
33. The interests of my teammates in the game take precedence over my personal interests.					
34. I am willing to exert more effort than required to succeed in the game I play.					

(Continued)

Table A.1. Continued

Statement	Always	Often	Sometimes	Rarely	Never
35. When harm occurs to my teammates in the game, I do not care if I disagree with them on some issues.					
36. I reject actions by others that harm the reputation of my teammates in the game.					
37. I can adjust my goals to align with those of my teammates in the game.					
38. I encourage my teammates in the game to adopt new goals we strive to achieve.					
39. I feel uncomfortable if I repeatedly help my teammates in the game.					