

## **The Level of Psychological Hardiness Among Volleyball and Swimming Players in Jordan: A Comparative Study**

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### **Abstract**

*This study aimed at identifying the level of the psychological hardiness among the volleyball and swimming players in Jordan. It also aimed at identifying the effect of the (type of game) variable on the psychological hardiness among the players. The researchers applied the descriptive method in its survey form, as the sample consisted of all the male and female players of the first division volleyball clubs (n=126), and male and female swimming players (n=18) who are enrolled in the 2022/2023 sports season. The researchers constructed a questionnaire to measure psychological hardiness, which consisted of three domains (Challenge, commitment, and control), and was distributed over 15 items. The data processing was carried out using the means, standard deviations, analysis of variance and Cronbach Alfa.*

*The results showed that the psychological hardiness level among the volleyball and swimming players was high, and that there were no statistically significant differences of the hardiness level among the volleyball and swimming players ascribed to the (type of game) variable.*

*In the light of the results, the researchers recommended to affirm the significance of the psychological hardiness among the volleyball and swimming players, and to hold courses and workshops to introduce the significance of the psychological hardiness among the players.*

**Keywords:** *Psychological hardiness, volleyball, swimming, players.*

### **Introduction**

The psychological hardiness is one of the most important factors in building positive personality of the sports individual, as it plays a vital role in removing the internal and external obstacles the player may be exposed to and affect his personality, so that he will realize all the sports achievements he targets. On the other hand, the psychological hardiness is deemed as the individual's perception of the variables and psychological stress that encounter him during performing the life skills required from him; and his

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belief in his ability and effectiveness in using the environmental experiences and the psychological resources to face the stressing life events (Ishtaiwi, 2022).

The psychological hardiness displays the individual's ability to possess several personal characteristics, such as ability to commitment, challenge, and control in the daily life affairs, which help him face the origins of these pressures as well as continuous development, overcome the challenges, and perfectly respond to the surrounding environmental requirements. Psychological hardiness may reflect the ability of who owns it to absorb the challenges and face the psychological conditions and pressures that he faces and thus adapting to it and finding the right solutions, in a manner that guarantees for him continuity and maintaining the safety of his role in life (Al-Houri, 2016).

Khanfar (2014) points out the importance of the psychological hardiness as it protects the individuals against the different life stresses, they are exposed to, and makes them more harmonic and optimistic, which renders them able to overcome their stressing problems. Furthermore, it contributes to protecting them against different physical illnesses and psychological disorders.

Furthermore, the individual's perception of the different events makes him less affected when facing the different stresses and obstacles, which enable him acquire ability of protection from the negative influences (Kammash and Hassan, 2018). In the same context, Abdelmuttaleb (2017) sees that the individuals who suffer from low psychological hardiness do suffer from some psychological and health damage. In contrast to individuals who have a high level of it, they are highly efficient in controlling the internal and external conditions to which they are exposed and overcoming psychological crises. Therefore, they can control and make hold of their life course and achieve the objectives they are required to realize. The effect of the psychological hardiness of the individual plays the mediator role between the individual's psychocognitive evaluation of the stressing conditions and the readiness and preparation to face these stresses.

Bartone (2012) indicated that the concept of psychological hardiness is linked to the individual's possession of sufficient bravery to live life, in spite of all what he is exposed to of pain and futility. It is a point of view and general philosophy upon which the individual builds his self-view and forms in him the concept of positive self-perception.

The researchers see that the role of the psychological hardiness is not limited to helping the player face the exceptional conditions that he may face and adapt to, rather he will overcome these to organize life roles, arrange the priorities, and align with the multiple roles required of him. In this regard, the player's life cannot be separated from his ability to perform what he is required to during practicing the sports activities, which increases its importance to realize the achievements and desired objectives.

The researchers see that both volleyball and swimming sports are among the sports games through which the players are exposed to many internal and external psychological stresses, through the influence of the surrounding environment. Thus, this is reflected in their level of performance, their achievement of the goals required of them, and reaching the best sporting achievement.

Through the work of the researchers in the field of teaching and training both the volleyball and swimming games, and their follow-up of the two games, as well as reviewing many previous studies related to the psychological hardiness, Jad (2023) and Abdelrahan (2022), they noticed a lack in the attention on studying the negative influences and pressures the players are exposed to during the situations of training and contests of different levels. Such influences may negatively affect the players' psychological and physical health and their sports performance, as well as inability to fulfill any major achievements at a regional or international level in the volleyball game,

as the swimmers' achievements are limited to a few of them. As a result, the researchers decided to carry out this study to identify the reasons that play a role in not realizing major achievements at a regional or international level. Thus, the idea of carrying out this study surfaced to identify the level of the psychological hardiness among the volleyball and swimming players in Jordan.

The significance of this study is summarized as follows:

- 1- The psychological hardiness issue is among the important subjects that were not sufficiently studied about the volleyball and swimming players, as far the knowledge of the researchers go.
- 2- Identifying the level of the psychological hardiness among the volleyball and swimming players and comparing between them in Jordan.
- 3- Providing the Arabic library, in general, and the Jordanian, in particular, an important reference for the specialists in the sports psychology field, and volleyball and swimming.

This study aims to identify the following:

- 1- Level of the psychological hardiness among the volleyball and swimming players in Jordan.
- 2- Differences in the psychological hardiness level among the volleyball and swimming players in Jordan according to the (game) variable.

Study Questions:

- 1- What is the level of the psychological hardiness among the volleyball and swimming players in Jordan?
- 2- Are there statistically significant differences at ( $\alpha \leq 0.05$ ) significance level in the psychological hardiness level among the volleyball and swimming players in Jordan according to the (game) variable?

Limitations of the Study:

Temporal Limitation: The study was applied on the volleyball and swimming players at their training facilities (Amman, Irbid, Zarqa).

Spatial Limitation: The study was applied during the period from 01 to 15 October 2023.

Human Limitation: All the first division clubs' players of the volleyball, and first division swimming players (general category) who are enrolled for the (2022-2023) sports season of both genders (n=144).

## Material & methods

Methodology: The researchers applied the descriptive method (in its survey form) due to its suitability to this study and its objectives.

Study Population and Sample:

All the first division clubs' volleyball players of both genders (n=126), and swimming (general category) players of both genders (n=18) who are already enrolled in 2022-2023 sports season, according to the official records of the federation of the two games. They were chosen according to the comprehensive survey method, as shown in Table (1).

Table 1. Description of the male and female participants of the research sample.

| Variable | Category   | Number | Percentage |
|----------|------------|--------|------------|
| Game     | Volleyball | 126    | 87%        |
|          | Swimming   | 18     | 13%        |
|          | Total      | 144    | 100%       |

Instrument:

The researchers reviewed many parapsychological instruments that are related to psychological hardiness: Ishtaiwi (2020), Al-Maqbalia (202), Al-Sharman (2022), Azab (2021). Accordingly, the researchers constructed the study instrument in its initial form with (15) items, distributed over three domains: (Challenge, commitment, control).

The instrument was presented to (5) expert arbitrates who are specialized in this field. The data was retrieved from the arbitrates and their recommendations and comments were considered, and the final shape of the instrument was made as follows:

First domain: Challenge, consisting of five items; second domain: commitment, consisted of five items; and third domain: control, consisted of five items. Finally, and based on the opinions of the arbitrates, Likert five-point scale was applied to respond to the study items, as follows:

| Response | Very slightly agree | Slightly agree | Moderately agree | Strongly agree | Very strongly agree |
|----------|---------------------|----------------|------------------|----------------|---------------------|
| Degree   | 1                   | 2              | 3                | 4              | 5                   |

The researchers obtained the means to use a three-level classification scale to describe levels of psychological hardiness as follows:

| Category                    | Level  |
|-----------------------------|--------|
| From 1 to less than 2.33    | Low    |
| From 2.33 to less than 3.67 | Medium |
| From 3.67 to less than 5.00 | High   |

The researchers calculated the scientific coefficients, validity and reliability as follows:

Instrument validity: the instrument was presented to a group of experienced and specialized arbitrates in the sports psychology, volleyball, and swimming games as well as measurement and evaluation, to judge the suitability of the scale items to its domains and to the study questions and objectives. Their views and comments were taken into consideration in terms of deletion, addition, or amendment, with agreement of the arbitrates amounting (75%).

Reliability: as shown in the following Table (2).

Table 2. Reliability of the domains of psychological hardiness using Cronbach Alfa coefficient.

| Scale                   | Domains    | No. of the items | Cronbach Value ( $\alpha$ ) | Alfa |
|-------------------------|------------|------------------|-----------------------------|------|
| Psychological Hardiness | Challenge  | 5                | 0.85                        |      |
|                         | Commitment | 5                | 0.89                        |      |
|                         | Control    | 5                | 0.79                        |      |

|                                 |    |      |
|---------------------------------|----|------|
| Overall Psychological Hardiness | 15 | 0.87 |
|---------------------------------|----|------|

Table (2) shows that the domains of the psychological hardiness scale enjoy high reliability values, as the reliability value amounted to (0.87) for the overall positive psychological hardiness scale.

Statistical processing: The researchers used the means, standard deviations, and Cronbach Alfa coefficient to find out the study instrument reliability.

## Results

Question One: What is the level of the psychological hardiness among the volleyball and swimming players in Jordan?

To answer this question, the means and standard deviations were calculated for the domains and items of the psychological hardiness, as shown in tables (3, 4, 5, and 6).

### 1- Challenge domain

Table 3. The levels of the means of the sub-items of the challenge domain arranged in a descending order.

| No.             | Item   | M    | SD   | Level | Rank |
|-----------------|--|------|------|-------|------|
| 5               | I enjoy taking on challenges.                            | 4.61 | 1.00 | High  | 1    |
| 1               | Despite the challenges, I can achieve my goals.          | 4.32 | 1.07 | High  | 2    |
| 2               | Success after facing the challenges makes me feel happy. | 4.14 | 1.07 | High  | 3    |
| 3               | I could challenge the difficulties that may face me.     | 4.11 | 1.04 | High  | 4    |
| 4               | I could solve the problems I encounter.,                 | 3.75 | 1.00 | High  | 5    |
| Overall, Degree |  | 4.18 | 0.76 | High  |      |

Table (3) shows the means and standard deviations of the items of the challenge domain, arranged in a descending order. Looking at the value of the mean of the domain (as a whole), it amounted (4.18), which is a high level as per the employed classification scale.

### 2- Commitment Domain:

Table 4. Levels of the M's of the sub-items of the commitment domain.

| No.             | Item  | M    | SD   | Level  | Rank |
|-----------------|---|------|------|--------|------|
| 3               | I make my own decisions.  | 4.21 | 1.00 | High   | 1    |
| 2               | I feel that work and spending effort have a large role in my life.  | 4.18 | 1.04 | High   | 2    |
| 1               | I am convicted that unsuccessful work is due to the poor planning.  | 4.01 | 1.01 | High   | 3    |
| 5               | I plan based on my abilities.                                       | 3.88 | 1.14 | High   | 4    |
| 4               | I care about business and activities more than I care about myself. | 3.35 | 1.11 | Medium | 5    |
| Overall, Degree |   | 3.92 | 0.77 | High   |      |

Table (4) shows the M's and SDs of the items of the commitment domain, arranged in a descending order. The value of the domain M (as a whole) amounted to (3.92), with a high level according to the classification scale.

3- Control Domain:

Table 5. Levels of the M's of the sub-items of the control domain.

| No.             | Item   | M    | SD   | Level  | Rank |
|-----------------|--|------|------|--------|------|
| 3               | My abilities play a role in my success.  | 4.54 | 1.04 | High   | 1    |
| 1               | I anticipate the changes that happen in life, they do not fear me as they are normal things. | 4.30 | 1.00 | High   | 2    |
| 2               | I think that most of what happens is the result of my performance.                           | 4.11 | 1.01 | High   | 3    |
| 5               | My life has a goal and meaning for which I live.   | 4.05 | 1.55 | High   | 4    |
| 4               | I can control the course of my life affairs.   | 3.66 | 1.15 | Medium | 5    |
| Overall, Degree |  | 4.13 | 0.82 | High   |      |

Table (5) shows the M's and SDs of the items of the control domain, arranged in a descending order. The value of the domain M (as a whole) amounted to (4.13), with a high level according to the classification scale.

Table 6. Levels of the M's of the psychological hardiness among the volleyball and swimming players in Jordan.

| No.     | Domain     | M    | SD   | Level | Rank |
|---------|------------|------|------|-------|------|
| 1       | Challenge  | 4.11 | 0.77 | High  | 1    |
| 2       | Commitment | 3.77 | 0.07 | High  | 3    |
| 3       | Control    | 3.98 | 0.81 | High  | 2    |
| Overall |            | 3.95 | 0.73 |       | High |

Table (6) shows the values and levels of the estimations of the sample participants of the means of the psychological hardiness among the volleyballs and swimming players in Jordan. With reference to the values of the means, the highest values were achieved in the challenge domain, as it achieved (4.11) mean, according to the applied classification scale.

Question Two: Are there statistically significant differences at ( $\alpha \leq 0.05$ ) significance level in the psychological hardiness level among the volleyball and swimming players in Jordan according to the (game) variable?

To answer this question, the variance analysis was used as shown in Table (7)

Table 7. Variance analysis of the domains of the psychological hardiness scale as per the (game type) variable.

| Psychological Domains | Hardiness | Source of Variance | Total Squares | Freedom Degrees | Squares M | F Value | Sign. |
|-----------------------|-----------|--------------------|---------------|-----------------|-----------|---------|-------|
| Challenge             |           | Game               | .041          | 1               | .041      | 0.06    | 0.78  |
|                       |           | Error              | 151.4         | 285             | 0.57      |         |       |
|                       |           | Total              | 210.85        | 143             |           |         |       |

|               |       |        |     |      |      |      |
|---------------|-------|--------|-----|------|------|------|
| Commitment    | Game  | 0.07   | 1   | 0.00 | 0.15 | 0.88 |
|               | Error | 137.07 | 285 | 0.54 |      |      |
|               | Total | 181.14 | 143 |      |      |      |
| Control       | Game  | 0.00   | 1   | 0.00 | 0.00 | 0.94 |
|               | Error | 155.33 | 285 | 0.55 |      |      |
|               | Total | 142.33 | 143 |      |      |      |
| Overall Scale | Game  | 0.00   | 1   | 0.00 | 0.00 | 0.94 |
|               | Error | 111.21 | 285 | 0.38 |      |      |
|               | Total | 138.21 | 143 |      |      |      |

Table (7) shows the results of the variance analysis of all the domains of the psychological hardiness scale according to the game type variable. Through reviewing the calculated values of the level of the differences of all the three domains, in addition to the overall degree (representing the three domains), we find that they were higher than 0.05, which means nonexistence of statistically significant differences between the means of these domains as shown in the Table.

## Discussion

Through the data of Table (6), the levels of the study sample participants' estimation of the means of the psychological means among the volleyball and swimming players in Jordan, we find that they were (4.11), which is a high-level value, according to the classification scale adopted in this study. The researchers ascribe this result to that the volleyball and swimming players feeling as if they possess high perfection of personal traits, and positive self-concept. This always displays their desire to feel success and pleasure in facing the challenges and achieving their goals despite the internal and external pressures they experience. They also feel that they possess different life skills in solving their various problems due to acquiring cumulative, varied experiences through the play situations. In addition, there is a possibility to achieve better results due to the abilities and various technical and physical characteristics they possess, which will reflect their views about what they own of distinguished psychological hardiness. These results are in line with those of the studies of Al-Dulaihi (2021) and Othman (2020).

As for the challenge domain, the researchers ascribe gaining the highest mean among the psychological hardiness domains with high degree, to that the volleyball and swimming players feel pleasure when they achieve their goals. Furthermore, they can achieve better results despite the different pressures they experience whether internally or externally due to the continuous training and taking part in sports competitions. The researchers also ascribe this result to the fact that the players possess skills in problem solving and ability to face challenges and difficulties, as well as possibility of achieving their desired goals. This result is in line with the study of Jadarrabb, and Al-Zaid (2022), which indicated that the level of the psychological hardiness was with high degree.

The control domain ranked second with high degree. The researchers ascribe this result to volleyball and swimming players who feel that their lives have meaning and value they live too. In this concern, they have high abilities and capabilities that enable them to carry out their tasks and perform what is required from them with high efficiency that helps them achieve their goals. Furthermore, the situations that they are exposed to during training or sports contests, such as winning or losing, are due to their performance and the conditions of the different sports contests, which are normal things that do not affect their life, which enable them to control their different life affairs. Finally, the commitment

domain came last and with high degree either, which the researchers ascribe to that the volleyball and swimming players in Jordan believe that the more efforts they spend and seriously committed to the trainings and sports contests of their different levels, the more positive reflection on their achievement will be. This will lead to their success in the duties and work required from them and to achieving the best results.

As for question two, the calculated values of the hardiness level of the volleyball and swimming players in each of the three domains, in addition to the overall degree (representing the three domains), were higher than 0.05, which means nonexistence of statistically significant differences among the means of these domains, as shown in Table (7). The researchers attribute this to the fact that the players, when they responded to the study instrument, believe that they possess the positive characteristics and psychological traits, which create in them higher psychological hardiness. Thus, the type of the game did not affect their responses, and the results of their responses to the instrument items were without the existence of statistical significance. Therefore, the researchers believe that volleyball and swimming players have high psychological hardiness of the same level, particularly due to the cumulative experiences with them. They represent the highest category in their game and, through their commitments to the trainings and control of their life affairs, they possess their characteristics and psychological traits, which, as a result, will reflect on their psychological hardiness. This result is in line with the study of Micoogullari, Odek & Beays (2017).

## **Conclusions**

- 1- Volleyball and swimming players possess high positive psychological traits.
- 2- There are no statistically significant differences in the psychological hardiness level among the volleyball and swimming players.

## **Recommendations:**

- 1- Reassuring the importance of the psychological hardiness among the volleyball and swimming players.
- 2- Holding courses and workshops to introduce the importance of the psychological hardiness among the players.
- 3- Carrying out more studies about the psychological hardiness for other different sports games.
- 4- Carrying out other studies that tackle other variables related to the nature of the games and positions of the players.

Conflicts of interest - the authors have no conflicts of interest to declare.

## **References**

- Abdelrahman, Hanan (2022). Psychological hardiness and its relationship to the skillful performance of belly crawl swimming among the female students at the Physical Education College, Zagazig University, the Educational Scientific and Sports Sciences Journal, V. 30, No. 2, Physical Education College for Males, Banha University.
- Abdelmuttaleb, Abdelmuttaleb (2017). Psychological hardiness and its relationship to the physical disorders and certain demographic variables, Arab Childhood Magazine, No. 74, Cairo.
- Abdelmaqsoud, Amani (2010). Achievement motivation scale for adolescent children (Scale manual), Anglo Egyptian Bookshop, Cairo.



- Al-Dulaihi, Khalid (2021). Psychological hardiness and its relationship to the positive thinking among the students with learning disabilities in the City of Riyadh, the Islamic University Journal for the psychoeducational studies, Palestine.
- Al-Houri, Akla (2016). Sports Psychology, a contemporary vision, Ed. 1, Modern Book Center, Cairo.
- Al-Maqbaliyah, Rahma (2020). Effect of a group counseling program in improving the psychological hardiness among the female teachers of students with learning disabilities in the Sultanate of Oman, International Magazine for Psychoeducational Studies.
- Al-Sharman, Bashar (2021). Relationship between the psychological hardiness and certain personal traits among the handball players in Jordan, MA Thesis, Al-Yarmouk University, Jordan.
- Azab, Hani (2021). Psychological hardiness of the boxing referees and its relationship to the results of the matches, the Scientific Physical Education and Sports Sciences Journal, V. 28, No. 5, Banha University.
- Bartone, P. T. (2012). Social and organizational influences on psychological hardiness: How leaders can increase stress resilience. *Security Informatics*, 1(1), 1-10.
- Jad, Amro (2023). Psychosocial climate and its relationship to the psychological hardiness among swimming players, *Scientific Journal of the Physical Education and Sports Sciences*, V. 31. No. 5, Physical Education College for Males, Banha University.
- Jadalrabb, Hisham; Al-Zaid, Loay (2022). Psychological burnout and its relationship to the psychological hardiness among the psychologists in the public and specific education schools in the State of Kuwait, *Arab Studies in Education and Psychology*, No. 144.
- Ishtaiwi, Thabet (2022). Psychological hardiness and its relationship to the effectiveness of decision taking among the trainers of the different football classes in Palestine, *An-Najah National University Journal for Research (Humane Sciences)*, V. 36 No. 10, Palestine.
- Kammash, Yousef; Hassan, Abdelkathem (2018). *Teaching-Learning Psychology*, Gulf House Press and Publishing, Ed. 1, Amman.
- Khanfar, Fathieh (2014). Psychological hardiness as a mediating variable between psychological stress and psychological adjustment, Unpublished MA Thesis, University of Kasdi Merbah Ouargla, Algeria.
- Micoogullari, B., Odek, U. & Beayz, O. (2017). Evaluation of sport mental toughness and psychological wellbeing in undergraduate student-athletes, *Educational Research and Reviews*, 12(8), pp: 483-487.
- Othman, Ali (2020). Quality of psychological life and its relationship to the psychological hardiness and security among volleyball premier league players, *Physical Education and Research Studies Magazine*, No. 66.