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# The Relationship between Psychological Preparation and the Level of Psychological Hardiness Among Young Judo Athletes A Field Study: Some Judo Schools in Southern Algeria

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## **Abstract:**

This study aims to identify the relationship between psychological preparation in its different methods and mechanisms, and the psychological hardiness of young athletes in combat sports (using judo as a model) through the following dimensions (commitment, challenge, control). The study was conducted on a sample of 80 young cadet judokas at Ami Said Sports Club in Ghardaia. The sample was selected by the simple random method. The researcher relied on the descriptive correlational approach. The study tool was the psychological hardiness scale of Mekheimeradapted according to the nature of the subject matter. The results indicated that psychological preparation contributes greatly to developing and enhancing the dimensions of psychological hardiness among young judokas.

**Keywords:** Psychological preparation, psychological hardiness, judo.

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## **1- Introduction:**

The sciences focus on different aspects that contribute to promoting human life, making it healthier, socially balanced, and psychologically and physically well-rounded. View the individual as an integrated unit of body, mind, emotions, motivations, and personality, the nature of his life, lifestyle, and the influences of his surroundings. The more there is a balance among

these factors, the more effective and influential his performance becomes in his life and surroundings.

The sports domain seeks to cultivate individuals who excel, are capable of facing challenges, and compete in their specialization while handling different pressures. This can only be fulfilled if they possess a high level of mental and psychological health and the athletic skills and physical qualities that qualify them for such endeavors. They undergo continuous training and development after choosing athletes and directing them towards a specific sport at an early age based on the harmony between their abilities, features, preparation, and skills with the sport that suits them. This strives to improve all the skills and qualities that lead them to excellence and success in their chosen sport. Therefore, we have placed these aspiring individuals in the proper framework, permitting them to enter elite sports and providing the sports community with athletes capable of competing in various sports disciplines, especially combat sports, which have gained popularity in recent years.

## **2- Problem Statement:**

Field experiments revealed through different tournaments and competitions have proven that psychological preparation is essential in preparing athletes, just like physical, skill-based, and strategic preparations. Experiences in training psychological skills have particularly benefited players, enhancing their levels. Many athletes in advanced countries regard training in psychological skills as necessary in their training programs (Mohamed Hassan Alawi, 2002, pp. 603-604).

Psychological or mental preparation involves developing the psychological capabilities and certain personality traits required for successful participation in sports under competitive or training conditions. It is the scientific application of specific and directed methodological means toward the psychological formation of athletes (Mohamed Hassan Alawi, Kamal El-Din Abdel Rahmane Darwish, 1998, p. 15).

Psychological preparation is the outcome of positive motivations and attitudes based on the formation of genuine convictions, knowledge, and virtuous traits, as well as the development and shaping of general and specific

volitional traits in the individual athlete. Besides, it involves psychological and educational guidance for athletes, contributing to their ability to face and effectively solve problems encountered during training or competition (Loucif Rabeh, 1993, p. 22).

Psychological hardiness represents a personality trait that enables the youth to deal effectively with pressures, maintain mental and physical health, and avoid psychophysiological disturbances from stress during training or competition. Psychological hardiness, in this context, is the individual's general belief in their effectiveness and ability to use all available psychological and environmental resources to perceive, interpret, and effectively confront life's stressful events (Mekheimer Imad, 1996, p. 277).

Moreover, Hanton indicated that individuals with psychological hardiness effectively employ assessment and coping strategies, demonstrating that these individuals possess a high level of self-confidence. Therefore, they confront stressful situations with less threat, reconstructing them more positively. However, this is not universally applicable to all individuals. Hence, a series of studies confirmed that psychological hardiness comprises commitment, goal clarity, control, and challenge (AlmufarrejI Salem, Alshahri Abdullah, 2008, p. 89).

In this study, we have determined commitment, challenge, and control as indicators of hardiness to correlate them with the psychological preparation variables, including self-efficacy, self-confidence, and psychological balance in young practitioners of Judo. Judo, an Olympic sport widely practiced globally and in Algeria, is marked by rapid performance, interaction, friction, dynamics, and continuous attack, demanding a high level of psychological hardiness. Through this study, the researcher aims to identify the role of psychological preparation in preparing young athletes for different situations and challenges. In light of the above, we raise the following question:

**Is there a correlational relationship between psychological preparation and the level of psychological hardiness in young practitioners of Judo?**

#### **Sub Questions:**

1. Is there a correlational relationship between psychological preparation and the commitment attribute in young practitioners of Judo?

2. Is there a correlational relationship between psychological preparation and the challenge attribute in young practitioners of Judo?
3. Is there a correlational relationship between psychological preparation and the control attribute in young practitioners of Judo?

### **Study Hypotheses:**

**General Hypothesis:** There is a correlational relationship between psychological preparation and the level of psychological hardiness in young practitioners of Judo.

### **Sub-Hypotheses:**

- There is a correlational relationship between psychological preparation and the commitment attribute in young practitioners of Judo.
- There is a correlational relationship between psychological preparation and the challenge attribute in young practitioners of Judo.
- There is a correlational relationship between psychological preparation and the control attribute in young practitioners of Judo.

### **3. Study Objectives:**

- To assess the level of psychological hardiness in young practitioners of Judo.
- To examine the nature of the relationship between psychological preparation and the commitment attribute as an indicator of psychological resilience in young practitioners of Judo.
- To investigate the nature of the relationship between psychological preparation and the challenge attribute as an indicator of psychological hardiness in young practitioners of Judo.
- To explore the nature of the relationship between psychological preparation and the control attribute as an indicator of psychological hardiness in young practitioners of Judo.

### **Study Importance:**

The current study holds significance due to the importance of its variables. Psychological hardiness is a contemporary topic in positive psychology, and psychological preparation for athletes is one of the critical factors that coaches and training planners focus on. It has gained considerable attention in

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modern training practices and has become an area of interest for different scientific studies and research .

Furthermore, Judo is an Olympic individual sport in which athletes can excel, and it can be included as a national sport under the supervision and sponsorship of the state in terms of funding and training. However, athletes can only excel if they have a high level of psychological preparation, particularly at the beginning of their athletic career, i.e., during their youth. Consequently, the researcher aims to highlight the significance of psychological preparation and its benefits for athletes, emphasizing the importance of incorporating it into training programs and prioritizing the care for athletes at young ages.

## **5- Study Terminology:**

### **❖ Psychological Preparation:**

A unified set of direct or indirect methods proficient in enhancing the psychological capabilities of athletes (Phil, 1982, p12).

Psychological preparation is a complementary process inseparable from the overall preparation of the player, including skill, tactical, physical, cognitive, and moral preparation. It is essential to plan for both the short and long term (Wajdi Mustafa, Mohamed Lotfi El Sayed, 2002, p252).

### **▪ Procedural Definition:**

It is a set of factors that contribute to enhancing self-confidence in individuals and making them mentally strong, capable of controlling their emotions and reactions, and capable of exhibiting balanced responses in different situations.

### **❖ Psychological Hardiness:**

A psychological contracting pattern that an individual commits to regarding oneself, one's goals, and others around them. It is the belief that individuals can control the events they encounter, bear responsibility for what happens to them, and that changes in different aspects of life are stimulating and necessary for growth rather than threats and hindrances (Mekheimer Imad, Previous Reference, p284).

### **▪ Procedural Definition:**

It is a set of factors that enhance self-confidence in individuals, making them mentally strong, controlling their emotions, and producing balanced reactions in various situations.

### **❖ Dimensions of Psychological Hardiness:**

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Studies in psychological hardiness demonstrate that it consists of three components: Commitment, Challenge, and Control, which are integral and cannot be separated, working as a psychological variable that reduces the effect of stressful events on the individual's physical and mental health, providing motivation and encouragement to overcome these events (Maddi, 2002, p175).

#### ❖ **Judo:**

A traditional Japanese sport meaning "gentle way" or "gentle path." It depends on cohesion and harmony between two competing individuals. The goal is to disrupt the opponent's balance, control it through technical movements, and throw it to the ground while restraining its movements without causing harm, all within specified rules and regulations (Hassan Ahmed El Shafie, 1998, p38).

#### ▪ **Procedural Definition:**

It is an ethical and educational sport based on physical and skillful strength, concentration, and mental presence where players compete.

### **6. Previous Studies:**

#### **First Study: Islah Mohamed Shafie Wahba**

**Title:** Psychological Preparation for Athletes: Between Reality and Aspiration.

**Study Nature:** Scientific article in the Sports Journal, Issue 1, 2010.

**Problem Statement:** What is the reality of psychological preparation for athletes?

- Are there differences between the actual psychological preparation for athletes and what it should be?

#### **Study Objectives:**

- Understand the reality of psychological preparation for athletes in some clubs in Alexandria through designing a questionnaire form.
- Develop a proposed model for the ideal psychological preparation for athletes.

**Methodology:** Descriptive survey methodology.

**Study Sample:** 96 players from various individual and team sports.

**Study Tool:** The researcher designed A questionnaire form to assess the reality of psychological preparation.

#### **Study Results:**

- Players are aware of the importance of psychological preparation for competition.
- Players desire attention to psychological preparation, considering it an important and influential aspect of their performance.
- Players lack both cognitive and emotional aspects of psychological preparation.
- Players need to develop willpower traits and training in psychological skills: concentration, positive thinking, mental imagery, self-confidence, stress management, and mental relaxation.
- Players are not undergoing a training program for psychological skills.
- Players are aware of the value and importance of a psychological specialist and express an urgent need for one.

### **Second Study: Khaled Ben Mohammed Bin Abdullah Al-Abdali**

**Title:** Psychological Hardiness and its Relationship with Coping Strategies for Psychological Stress Among a Sample of High-Achieving and Regular Secondary School Students in Mecca.

**Study Nature:** Master's thesis in Psychological Counseling.

#### **Problem Statement:**

- What is the level of psychological hardiness among high-achieving and regular secondary school students?
- Do the coping strategies differ between high-achieving and regular secondary school students?
- What is the relationship between psychological hardiness and coping strategies for psychological stress among high-achieving and regular students?
- Are there statistically significant differences in psychological hardiness between high-achieving and regular students?
- Are there differences in coping with psychological stress between high-achieving and regular students?

#### **Study Objectives:**

- Assess the level of psychological hardiness among high-achieving and regular secondary school students.
- Identify the ranking of coping strategies for psychological stress.
- Investigate potential differences in psychological hardiness and coping strategies between high-achieving and regular students.

**Methodology Used:** Comparative correlational descriptive methodology.

**Study Sample:** A random sample representing 200 students.

**Study Tools:** Psychological Hardiness Scale (Mekheimer, 2006) and Coping Strategies for Psychological Stress Scale (Al-Hilali, 2009).

**Study Results:**

- The results showed that the level of psychological hardiness and its dimensions among high-achieving students is higher than that among regular students.
- There is a significant correlation between most coping strategies and psychological hardiness and its dimensions (commitment, control, challenge) among high-achieving and regular students.
- There are statistically significant differences between high-achieving and regular students in the scores of psychological hardiness dimensions and the overall score in favor of high-achieving students.
- There are statistically significant differences between high-achieving and regular students in coping strategies for psychological stress.

**Third Study: Djdid Ahlam, Al-Shayeb Mohammed Al-Sassi**

**Title:** The Relationship between Psychological Hardiness and Learning Motivation.

**Nature:** Scientific article in the Al-Bahith Journal of Humanities and Social Sciences, Issue 33, March 2013.

**Problem Statement:**

- Is there a relationship between psychological hardiness and learning motivation among first-year university students?
- What is the level of psychological hardiness among first-year university students?
- What is the level of learning motivation among first-year university students?
- Can the level of learning motivation be predicted from the level of psychological hardiness?
- Is there a relationship between the level of learning motivation, psychological hardiness, age, and gender?

**Study Objectives:**

- Identify the level of learning motivation among first-year university students.
- Determine the level of psychological hardiness among first-year university students.

- Investigate the relationship between the level of learning motivation and psychological hardiness among first-year university students.
- Explore the relationship between the level of learning motivation, psychological hardiness, age, and gender.

**Methodology:** Descriptive correlational methodology.

**Study Sample:** 278 male and female students.

**Study Tools:** Psychological Hardiness Scale (Mekheimer, 2002), Learning Motivation Questionnaire (Tawfiq Qatami, 1989).

**Study Results:**

- The study revealed that students' psychological hardiness and learning motivation are low.
- The prediction of the level of learning motivation from psychological hardiness was weak.
- There were statistically significant differences in the level of learning motivation related to age and gender, favoring younger females.
- The researcher attributed the low level of psychological hardiness to the pressures and situations students face during the transition from secondary to university education. The decline in learning motivation was linked to challenges adapting to the university's teaching methods, schedule, and assessment systems, especially for those on campus.

## **7. Survey Study:**

In this stage, the researcher collected information and reviewed previous research, studies, and relevant documents on the research topic to provide sufficient data and a comprehensive understanding of the subject from different perspectives and to form a complete theoretical background for the research. Before applying the two questionnaires and distributing the forms related to the research, a survey study was conducted on the research sample to identify the training conditions and communication with some players and coaches. This aimed to gather as much information as possible to address the research problematic and gain further insights into the study community (training times, official and unofficial match times, etc..).

### **7.1. Survey Study for the Two Tools:**

#### **7.1.1. Survey Study Objectives:**

The objectives of conducting the survey study include:

#### **7.1.2. Adjusting external variables that may affect the study results.**

- Verifying the suitability of the tools and understand the players' comprehension of their paragraphs and terms.
- Identifying some shortcomings in the procedures for implementing the questionnaires.
- Determining the time required for the application of the two tools.
- Practicing the application of the two questionnaires.

**7.1.3. Psychometric Characteristics of the two Tools:**

Two methods were used to calculate the validity and reliability of the tools on a standardization sample (n = 20) selected from the Union Sports Club in the Municipality of Laghouat, with ages ranging from (9-14) years. The results are as follows:

**First - Calculating the validity of the scales: Discriminant validity was used.**

**Psychological Hardiness Scale:**

- ✓ **Discriminant validity:** The peripheral comparison method was used on the standardization sample, for the questionnaire as a whole and its three dimensions. The critical ratio was used to calculate the significance of differences between the means of the higher and lower halves of the median. The following table illustrates the values (t):

**Table No. (01): Illustrates the values of the discriminant validity coefficient for the Psychological Toughness questionnaire**

Dimension	Comparison group	N°	Statistical values		value (T)	Significance level
			Mean	Median		
Commitment	Higher than the median	10	56.72	5.15	130.01	0.05
	Lessthe median	10	35.5	5.40		
Challenge	Higher than the median	10	52.09	1.62	13.6	0.05
	Lessthe median	10	34.27	5.79		
Control	Higher than the median	10	36.81	2.49	17.31	0.05
	Lessthe median	10	21.40	3.22		

<b>Total score</b>	Higher than the median	10	233	15,59	15.62	0.05
	Lessthe median	10	139.86	22,45		

It is evident from the previous table that there are statistically significant differences at a level of (0.05) between the higher and lower (27%) of the median on the dimensions of the Psychological Hardiness questionnaire and the questionnaire as a whole, confirming the discriminant ability of the questionnaire and its dimensions.

**Psychological Preparation Questionnaire:**

The self-validity coefficient was used, and its value is inferred from the value of the square root of Cronbach's alpha coefficient, which was 0.989. This value is close to 1, indicating that the questionnaire has a high-validity coefficient.

**Secondly - Tools Reliability:**

The internal consistency reliability was used through Cronbach's alpha coefficient, and the following table illustrates the reliability coefficient values for both questionnaires:

**Table No. (02): Illustrates the values of the reliability coefficient for the Psychological Hardiness questionnaire**

Dimension	Cronbach's alpha	Significance level
Commitment	0.837	0.05*
Challenge	0.774	0.05*
Control	0.792	0.05*
Total Degree	0.944	0.05*

**Table Number (03): Illustrates the values of the reliability coefficient for the psychological preparation questionnaire.**

Dimension	Cronbach's alpha	Significance level
Psychological preparation	0.961	0.05*

It is evident from the previous tables that both questionnaires have a high level of reliability, as indicated by the results of Cronbach's alpha

coefficients, which all approach the value of 1. These values are statistically significant at a level of significance (0.05).

### 8. Control of Study Variables:

- **Independent Variable:** Psychological Preparation
- **Dependent Variable:** Psychological Hardiness
- **Mediator:** Judo athletes categorized as juniors and cadets.

### 9. Study Population and Sample:

The study population is the original group from which the researcher draws the study sample. The sample should possess the same characteristics as the original population.

The current study population includes all Judo athletes in Laghouat and Ghardaia, distributed across two age groups: as juniors and cadets. The original population consists of 334 athletes, as illustrated in the following table:

**Table No. (04): Illustrates the distribution of the sample members within the original population**

Field	Province	Selected sample	Total	Percentage %
	Laghouat	Ghardaia		
Juniors	20	20	225	40
Cadets	20	20	118	40
Total	40	40	343	100

The table above shows that the number of Judo practitioners in Laghouat significantly exceeds the number in Ghardaia, with 225 athletes representing 65.59%, compared to 118 athletes in Ghardaia, representing 34.40%. The sample individuals were randomly selected, with 40 athletes from each province participating in the Judo specialization.

### 10. Study Methodology:

The nature of the problematic in any research mainly determines the appropriate research methodology to address it. To study this research, test its hypotheses, and verify their validity, a correlational approach was employed. We consider this approach suitable for this study because it identifies the conditions and relationships that exist between facts. Furthermore, it seeks to collect data and information about the realities of things and existing phenomena, subjecting them to scientific scrutiny.(Abdul Basset Hassan, 1979, p. 211).

### **11. Data and Information Collection Tools:**

#### **❖ Psychological Hardiness Scale:**

Prepared by Mekheimer in 2006, it consists of 30 items distributed across its three dimensions:

- ✓ Commitment, with items (3, 5, 6, 7, 8, 9, 12, 14, 15, 18).
- ✓ Challenge, with items (22, 4, 11, 13, 17, 19, 20, 2).
- ✓ Control, with items (1, 10, 16, 21, 23, 24, 25).

#### **❖ Psychological Preparation Questionnaire:**

Prepared by the researcher, this questionnaire comprises 36 items related to psychological preparation.

### **12. Statistical Methods:**

- Pearson's correlation coefficient (R)
- Mean
- Standard deviation

### **13. Presentation, Analysis, and Discussion of Results in Light of Study Hypotheses:**

#### **a. Presentation, analysis, and discussion of results for the first partial hypothesis:**

Calculating the relationship between the level of challenge and psychological preparation:

**Table No. (05): Illustrates the Pearson correlation coefficient between the challenge index and psychological preparation.**

Value variable	Mean	sd	Value "r"	Sample members N <sup>o</sup>	Probability value	Statistical significance
<b>Commitment</b>	3.84	1.18	0.932	80	0.000	D
<b>Psychological preparation</b>	4.87	1.02				

From Table (05), we observe that the mean for commitment dimension is 3.84. Additionally, the mean for psychological preparation is 4.87. The correlation coefficient,  $r$ , is 0.932, which is close to 1, indicating a strong and statistically significant relationship. This is supported by the  $p$ -value of 0.000, which is less than the significance level of 0.05.

**2- Discussion of the First Hypothesis Results:**

The first sub hypothesis has been confirmed, which suggested a correlational relationship between commitment as a psychological indicator of psychological hardiness and psychological preparation. This finding aligns with the research conducted by Mohamed Djamal Abdel Moneim Abdel Wahab in his study focused on the commitment of coaches participating in sports psychological preparation courses (Mohamed Djamal Abdel Moneim Abdel Wahab, 2012, p. 16). The researcher measured general and specific commitment levels and confirmed the nature of their relationship with psychological preparation. The researcher highlighted the significance of psychological counseling programs in fulfilling athlete commitment. According to the researcher, understanding oneself can be revealed through one's life values, commitment to certain principles, and having a purpose for living.

**2. Presentation, Analysis, and Discussion of the Second Sub-Hypothesis:  
- Calculating the relationship between the challenge level and psychological preparation:**

**Table No. (06): Illustrates the Pearson correlation coefficient between commitment and psychological preparedness.**

Value variable	Mean	sd	Value "r"	Sample members N <sup>o</sup>	Probability value	Statistical significance
Challenge	4.84	1.09	0.787	80	0.000	Significant
Psychological preparation	4.87	1.76				

### Statistical Analysis:

From Table No. (06), we notice that the mean for the challenge dimension was 4.84. Additionally, the mean for psychological preparation was 4.87, and the Pearson correlation coefficient (r) was 0.787, close to 1. This shows a strong and statistically significant correlation since the probability value is 0.000, less than the significance level of 0.05.

### Discussion of the Second Hypothesis Results:

The results indicate a strong and statistically significant relationship between the challenge as a psychological dimension of hardiness and psychological preparation. This could be attributed to the effect of training and psychological guidance programs in increasing athletes' self-confidence and, consequently, helping them overcome tension and disturbances associated with sports or daily life. This, in turn, increases their readiness to face challenges and obstacles hindering their success. This finding is consistent with the research conducted by Khaled Ben Mohammed Bien Abdullah Al-Abdali in his study on psychological hardiness and its relation to coping strategies with psychological stress. The researcher found statistically significant differences in the level of challenge and self-confidence between athletes who undergo high psychological preparation compared to the other group that does not give it significance.

### 3. Presentation, analysis and discussion of the results of the third sub-hypothesis:

- Calculating the relationship between the level of control and psychological preparation:

**Table number (07): It shows the value of the Pearson correlation coefficient between control and psychological preparation.**

Value variable	Mean	sd	Value "r"	Sample members N <sup>o</sup>	Probability value	Statistical significance
Challenge	3.66	0.98	0.899	80	0.000	D
Psychological preparation	4.87	1.30				

Table No. (07) indicates that the mean for the control dimension is 3.66. Similarly, the mean for psychological preparation is 4.87, and the correlation coefficient (r) value is 0.899, close to 1, showing a strong statistically significant relationship. The probability value is 0.000, which is less than the significance level of 0.05.

#### **Discussion of the Third Hypothesis:**

The third sub-hypothesis has been confirmed, indicating a statistically significant relationship between psychological preparation and the level of control among judo athletes. This can be explained by the awareness gained by athletes from their coaches and preparatory programs. The inverse relationship between psychological reactions, physical condition, and the athlete's lack of control over themselves negatively affects various body systems. Therefore, teaching and instilling psychological skills in judo athletes, permitting them to deal with physiological and mental experiences, helps them cope with the pressures of competition and life, allowing them to use their psychological energy for success.

#### **14. Conclusion:**

- The level of hardiness among athletes is high when psychological preparation is used in their training programs.
- There is a significant relationship between psychological preparation and the concept of commitment among young judo athletes.
- There is a significant relationship between psychological preparation and the concept of challenge among young judo athletes.
- There is a significant relationship between psychological preparation and the concept of control among young judo athletes.

#### **15. Suggestions and Recommendations:**

- Highlight psychological preparation programs and consider them essential to the sports training process.
- Work on enhancing the mental health of young athletes.
- Allocate appropriate time for psychological preparation programs, diversify them, and provide psychological therapy services conducted by specialized trainers in the psychological field.
- Train coaches in the psychological field and various psychological preparation methods, especially for young athletes.
- Raise awareness about the role of psychological preparation through media channels.

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