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## **Trait anxiety and Its Relationship to Sports Achievement Motivation among Physically Disabled People**

**\*Ben Hadj Tahar Abdelkader<sup>1</sup>; Lebad Mammam<sup>2</sup> Dachnouch Ookba<sup>3</sup>**

<sup>1</sup>University of Khemis Miliana, Algeria, abdelkader.benhadj-tahar@univ-dbk.m.dz

<sup>2</sup>University of Batna 2, Algeria, m.lebad@univ-batna2.dz

<sup>3</sup> University of Batna 2, Algeria, a.deghnouche@univ-batna2.dz

### **Abstract:**

The aim of the study is to identify the level of anxiety as a trait for the physically handicapped who are practiced in the adapted sports activity and to detect differences in anxiety according to the individual characteristics of the physically handicapped and also identify the relationship between anxiety and the dimension of sportive achievement motivation (success achievement motive and avoid failure motive).

The researcher used the descriptive method; The study sample included 102 athletes who were physically disabled.

Study tools are a measure of sport achievement motivation designed by "J. Williss" 1982 and anxiety scale as trait of "Gorssuch, Lushene, Spielberger" 1970.

After the application we found the following results:

\_the level of anxiety for physically disabled athletes is low.

-there are no differences in anxiety-trait depending on (age, origin, for motor disability, level of study).

-a positive relationship between the anxiety-trait and the motivation to avoid failure and inverse relationship between anxiety as trait and the motivation to achieve success.

**Keywords:** Anxiety trait, sport achievement motivation, Physically Disabled.

*\*Corresponding author*

## **1. INTRODUCTION:**

Disability is considered to be of the most sensitive issues, which has become, both in the past and in the present, a truly common concern of world society. The prevalence, however, varies tremendously from society to society depending on the degree of care and attention given by each society to all aspects of healthcare; including, psychology, social science, education, sport science and medicine. Hence, the practice of adapted sports provides the successful means to help the individual cope with and accept his/her disability, and overcome the adverse effects of disability that impact on social/personality psychology; such as, *anxiety and tension*. Lately, though, there has been an increase in the participation of disabled people in sport clubs, to the point that international competitions for athletes with disabilities had notably been increased for all sports, where athletes with disabilities have shown encouraging results comparable to those without disabilities. This is, therefore, considered as a personal confirmation that this category is able to maintain well-being in all aspects of everyday life so as to compensate for disability. Notwithstanding the fact that a physical disability is a physical condition that affects a person's mobility and physical capacity, it is nevertheless clear that the problems that face the physically disabled are more of psycho-social nature. Al-Rousan (2001) pointed out that fear- and anxiety-related behaviors are among the distinctive feeling states of people with motor disorders (Al-Rousan, 2001, p. 275). The latter limits the athlete's chances of assuming responsibility, demonstrating abilities, and being realistic about the reasons of success, which adversely affects his/her sports achievement motivation. Presently, many researchers in Sport and Exercise Psychology (SEP) research fields believe that reaching high scores is based on achievement motivation in sport (Allawi, 2002, p. 142). This is related to the concept of competition and the desire for excellence, challenge and success. Clearly, achievement motivation in sport is considered the most important variable that drives the athlete's behaviour to achieve success in sports. Therefore, sport psychology specialists should develop SAM and search for personal-psychological variables that are associated with it, among which is trait anxiety, which is defined as a personal-behavioural motive or predisposition that makes the individual inclined to perceive a large number of non-dangerous situations as , threatening to further destabilize the fragile situation, which he/her handle it with different levels of anxiety (Sidqi, 2004, p. 227).

The present study investigates the relationship between trait anxiety and achievement motivation in sport among physically disabled individuals because of the scarcity of research in such field of study. Therefore, the problem of the study can be identified in the two following main questions:

- What is the level of anxiety among the physically disabled?
- Are there differences in trait anxiety associated with specific characteristics of individuals with physical disabilities?

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Accordingly, the sub-questions are:

- Are there differences in trait anxiety depending on the type of disability?
  - Are there differences in trait anxiety among physically disabled athletes attributed to age variable?
  - Are there differences in trait anxiety among athletes with physical disabilities attributed to educational level?
- Is there a relationship between trait anxiety and SAM among the physically disabled?

## **2. Study hypothesis:**

The study suggests the three initial hypotheses:

- The level of anxiety in athletes with physical disabilities is low.
- There are differences in trait anxiety associated with specific characteristics of individuals with physical disabilities.

From these, a series of sub-hypotheses are derived as follows:

- There are differences in trait anxiety depending on the type of disability.
- There are differences in trait anxiety among physically disabled athletes attributed to age variable;
  - There are differences in trait anxiety among athletes with physical disabilities attributed to educational level; and
- There is an expected relationship between trait anxiety and SAM among the physically disabled.

## **3. Study Objectives:**

**The objectives of the study are as follows:**

- Identifying the level of anxiety in athletes with physical disabilities;
- Highlighting the differences in trait anxiety in terms of some specific characteristics of the physically disabled.
- Recognizing the relationship between trait anxiety and SAM among the physically disabled.

## **4- Study terms:**

### **4.1 Anxiety:**

refers to relatively stable response techniques that characterize the individual's personality traits; namely that the anxiety arousal in this case is related to the personality, and therefore the degree of disparity in trait anxiety is more related to personality and individual differences, and this type of anxiety is most related to the psychological health of the individual (Sabra, Sharett, 2004, pp. 87-92).

## **4.2 Physically Disabled:**

A person who has a physical disability that prevents him from performing daily movements in their normal form, as a result of an injury that led to muscle atrophy, or a specific disease. The loss of movement may also be accompanied by sensory loss in these affected organs, which calls for the necessity of applying medical, psychological and social programs, to help him live with the greatest degree of independence, and integrate him into society (Safadi, 2007, p. 18).

### **4-3 sport achievement motivation:**

It was mentioned in (wadah,gergour,2015,p.97) quoted from( khlifa,2000) thatsport achievement motivationis a to perform some difficult things as quickly as possible and without the help of others, to overcome obstacles and reach the highest level of excellence and also to compete with others.

### **4-4adapted sports activity:**

It was mentioned in (mekeneth,2014,p.121) quoted from( Riad,2000) thatadapted sports activityis a Modification of the ways of practicing sports activities in line with the abilitiesIndividuals with special needs, commensurate with the type and degree of disability they have

## **5-1-Method and Materials :**

The researchers used the descriptive method using the method of correlational studies

### **5-2Participants :**

The researchers adopted the probability sampling, using the non-relative stratified random sampling method. The sample consisted of 102 athletes, representing 65.29% of the total members of the research society

### **5-3 Materials:**

#### **Trait Anxiety Scale:**

#### **Scale definition:**

developed by Spielberger, Gorssuch and Lushene in 1970, and quoted by Al-Behairy within the Egyptian environment. It includes two separate scales; the first is *State Anxiety*, and the second is *Trait Anxiety*. This test is used as a research tool to study the phenomenon of anxiety among normal adults, or patients with neuropsychiatric or organic diseases, to the last stressful situations that provoke feelings of anxiety in the human soul. (Al-Behairi, 1984, p. 10). The current study relied on State-Trait Anxiety. The State-Trait Anxiety consists of (20) items in which individuals are asked to describe how they feel in general, and is used as a research tool to distinguish between individual differences in response in terms of psychological stressors under different levels of anxiety severity. The test scores

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ranges from a mini value of 20 and a max value of 80. The respondents respond each item about trait anxiety on a 4-point scale, as shown below: Never, Sometimes, Often, and Always.

### **Psychometric Properties:**

#### **Scales Reliability:**

For computing Stability, the split-half method was adopted.

#### **Split-Half Method:**

The researchers relied on a split-half method between two halves based on odd-numbered and even-numbered, where the calculated "r" value was (0.82). Then, a Spearman–Brown prophesy formula were applied to obtain the reliability coefficient of the scale as a whole. The calculated R-value was (0.90), which indicates that the correlation coefficient was positive and acceptable. To statistically prove the result's validity, Pearson correlation coefficient was determined so that the calculated t-value (14.69) was greater than t-table (3.55), at a significance level of (0.001). This therefore requires the reliability coefficient to be statistically significance, and it can according be said that the anxiety trait scale is stable, acceptable, and reliable in the initial study.

#### **Validity:**

The researchers computed trait anxiety scale validity on:

- Content Validity,
- Criterion-Related Validity (Concurrent validity)
- Hypothesis Validity (Internal consistency approach for test validity).

#### a. **Content Validity:**

The researchers adopted the logical validity to ensure construct validity of the instrument with an inventory analysis method of previous studies, where it was proved, through the desk survey, the availability of scientific standards for this tool. Thus, the researchers were assured the scales' construct validity.

#### b. **Criterion-Related Validity:**

The researchers used the correlation validity between opposing groups in a comparative way),

**.Table 1: differences between the highest and the lowest trait anxiety scores in groups**

Scale	Highest Score		Lowest Score		T-value	Sig	Significance
	Mean	SD	Mean	SD			
<b>Trait Anxiety</b>	48.54	5.41	29.25	4.53	9.29	0.000	(***)
(***) significant at the level (0.001).							

As follows from the table shown above, it can be clear that there were differences between the highest and the lowest trait anxiety scores in both groups, where the t-tests for the difference of two means in the independent samples was a statistical significance at the level of significance (0.001). The t-table was (3.55), which was less than the calculated t-value (9.29), indicating that the latter differs between both the highest and the lowest trait anxiety scores in both groups, and therefore, concluding that the trait anxiety scale is valid in what it measures.

**c. Hypothesis Validity:**

The correlation coefficients were ranged from 0.31 to 0.57. After using the t-test, it was therefore found that all the items were statistically significant at an acceptable level of 0.05.

**5-4 Sports Achievement Motivation List:**

Based on Atkinson and McClelland's theory of achievement motivation (1953), also known as Need for Achievement (N-Ach), Joe Willis (1982) designed a "Sport-Specific Achievement Motivation" scale (SSAMS) in order to determine Sport-Specific Achievement Motivation level associated with athletic competition. The scale includes three determinants. They are: (i) the Extrinsic Motivation (EM); (ii) the Motive to Achieve Success (MAS); and (iii) the Motive to Avoid Failure (MAF). The list in fact includes forty (40) items: Twelve (12) extrinsic motivation items, fifteen (15) items for attaining success and thirteen (13) items for avoiding failure. It should be noted that the athlete should answer items, rated on a five-Point Likert Scale: very high, above average, average, below average and very low. In addition, it has to be taken into account that the list should be titled: "Sports-Tendencies List" (Allawi, 1998, p. 181,182).

**List Psychometric Characteristics:**

**The list Stability:**

The mid-split method was adopted between the two halves of the list, where the calculated value of  $t = 0.35$ . After Spearman-Brown prophecy formula and T-test were applied, we found that the stability coefficient is a statistically significant.

**Validity:**

The researchers computed the Sports Achievement Motivation validity relying on:

- Content Validity.
- **Criterion-Related Validity** (Concurrent validity)
- **Hypothesis Validity** (Internal consistency approach for test validity).

**a. Content Validity:**

The researchers adopted the logical validity to ensure the list construct validity with an inventory analysis method of previous studies, where it was proved,

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through the desk survey, the availability of scientific standards for this instrument. Thus, the researchers were assured the scales' construct validity.

### **b. Criterion-Related Validity:**

The researchers used the correlation validity between opposing groups in a comparative way).

**.Table 2: differences between the highest and the lowest trait anxiety scores in groups**

Scale	Highest Score		Lowest Score		T-value	Sig	Significance
	Mean	SD	Mean	SD			
Motive To Achieve Success	47.1	4.4	35.53	3.23	7.95	0.000	(***)
Motive To Avoid Failure	34.6	2.06	25	2.16	12.89	0.000	(***)
(***) significant at the level (0.001).							

It is clear from the above table, that there are differences in the results of the two groups (the group that got high scores and the group that got low scores) in the two dimensions of sports achievement motivation so that the result of the "T" is a statistical significance at the level of the most accurate significance, which is ( $p \leq 0.001$ ), and therefore we conclude that the dimensions of achievement motivation scale are valid in what they measure .

### **c. Hypothesis Validity:**

The researchers adopted the internal consistency approach for test validity. The correlation coefficients ranged from 0.28 and 0.54 for MAS and MAF, respectively. In addition, the T-test uncover that a result significant at 0.05 level of significance.

### **5-5- Statistical Analysis**

The researchers used the following equations :

- T-Test for Two Independent Groups, Kolmogorov–Smirnov Test , Pearsons Correlation Coefficient, T-Test Per Group, Analys of Variance A Posteriori Comparison.

### **6-Results:**

It was aimed at this section to identify the level of anxiety in athletes with physical disabilities. To answer the hypothesis, a one-sample t-test was used to determine the difference of differences between the arithmetic mean and the theoretical mean of trait anxiety.

**Table 3: differences between arithmetic mean and theoretical mean of respondents' trait anxiety**

Trait	Total Degree	Arithmetic Mean	Theoretical Mean	T-Value	Sig	Significance
Trait Anxiety	40	39.06	50	-8.966	0.000	(***)
(***): significant at the level (0.001)						

From this table, it can be seen that there were statistically significant differences between the arithmetic mean and the theoretical mean at a significant level of ( $p \leq 0.001$ ). Thus, the main conclusion to be drawn from is as follows:

-Individuals with physical disabilities have a low level of Trait Anxiety because the arithmetic mean is greater than the theoretical mean and therefore the difference between both means was statistically significant.

**Difference in trait anxiety associated with specific characteristics of individuals with physical disabilities**

In this section, the researchers attempted to answer the second main hypothesis, in which they expected that there were differences in trait anxiety associated with specific characteristics of individuals with physical disabilities, and where the sub-hypotheses, were in the following order:

The first sub-hypothesis was about the differences in trait anxiety depending on the type of disability and in order to verify the validity of this hypothesis, we applied an independent samples t-test.

**Table 4: differences in trait anxiety depending the type of disability**

Scale	Disability Type	Mean	SD	T-value	Sig	Significance
Trait Anxiety	Congenital	40.73	7.95	0.635	0.527	(-)
	Acquired	39.71	8.27			
(-): Non-significant						

As follows from the table shown above, there were no statistically significant differences in trait anxiety in terms of the variable of the disability type (acquired /or congenital motor disability) because the p-value is higher than 0.05 ( $p > 0.05$ ). Thus, the disability variable has no effect on trait anxiety in people with physical disabilities.



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The second sub-hypothesis was about the differences in trait anxiety among physically disabled athletes attributed to age variable, and in order to validate the aforementioned, a one way ANOVA approach was applied, and accordingly the table shows the differences in trait anxiety in terms of age variable.

**Table 5: differences in trait anxiety in terms of age variable**

Trait	Comparison type	Sum of Squares	Freedom Degrees	Mean Squares	F-Value	Sig	Significance
Trait anxiety	Intra-groups	38.09	3	19.04	0.289	0.750	(-)
	Inter-groups	6525.48	98	65.91			
	Total	6563.57	101				
(-) Non-significant							

As it is obviously clear from the table above, there were no statistically significant differences in trait anxiety attributed to age variable because the p-value is higher than 0.05 ( $p > 0.05$ ).

The third sub-hypothesis stated that there were differences in trait anxiety among athletes with physical disabilities attributed to educational level. To confirm the significance of differences, an ANOVA test was used.

**Table 6: differences in trait anxiety in terms of educational level variable.**

Trait	Comparison type	Sum of Squares	Freedom Degrees	Mean Squares	F-Value	Sig	Significance
Trait anxiety	Intra-groups	100.67	3	33.55	0.510	0.676	(-)
	Inter-groups	6446.5	98	65.78			
	Total	6547.17	101				
(-) Non-significant							

It can be concluded from the previous table that there were no statistically significant differences in trait anxiety attributed to educational level because the p-value is higher than 0.05 ( $p > 0.05$ ).

**Correlation between trait anxiety and achievement motivation in sport**

In this section, Pearson's correlation coefficient was calculated for the purpose of verifying the validity of this hypothesis.

**Table 7: correlation coefficients between trait anxiety and SAM variables.**

Statistical Measures	R-value	df	Sig	Significance
Trait anxiety – Motive To Achieve Success	-0.295	100	0.003	(**)
Trait anxiety – Motive To Avoid Failure	0.229		0.021	(*)
(*) significant at the level (0.05) , (**) significant at the level (0.01)				

The above table demonstrates that there was a positive correlation between trait anxiety and motive to achieve success at a significance level of ( $p \leq 0.01$ ), and there was an inverse correlation between trait anxiety and motive to avoid failure, which was significant at a significance level of ( $p \leq 0.05$ ).

## 7-Discussion

The first hypothesis states that trait anxiety's level was low. This result explained by the fact that what has been demonstrated in table3, where the practice of physical activity and sports by people with disabilities provides them opportunities to relieve stress and anxiety, improve healthy recreation and mood, and deal with negative emotions that the disabled experience from time to time as a result of functional and motor deficiencies. The study revealed that the physically disabled are enthusiastic about practicing adaptive sports activities. In addition to training and competition, they practiced other recreational activities, such as swimming, and athletic sports, in their spare time. They like to spend most of their time practicing sports with their peers under the same category for the purpose of avoiding peer family and societal pressures, leading inevitably for reducing stress and anxiety.

The second hypothesis states that there were differences in trait anxiety associated with specific characteristics of individuals with physical disabilities, where the first sub-hypothesis was about the differences in trait anxiety depending on the type of disability as can be ascertained throughout table 4, which demonstrates that there were no differences in trait anxiety in terms of the variable of the disability type.

The second sub-hypothesis states that there were differences in trait anxiety among physically disabled athletes attributed to age variable. As illustrated in table 5, through its various components, there were no differences in trait anxiety attributed to age variable. Addedly, the third sub-hypothesis indicates that there were differences in trait anxiety among athletes with physical disabilities attributed to educational level. In accordance with what is suggested, table 6 clearly confirms that there were non differences in trait anxiety attributed to educational level. The results of this study contributed significantly depending on

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the sub-hypotheses adopted. They, however, explain the positive effects of sports training on trait anxiety in individuals despite age differences, disability's type, and educational level. Sports activities are considered as a therapeutic and recreational means, whose objectives are to develop health and physical fitness, and introduce joy and happiness in the psyche of the physically disabled individuals, so as to overcome the psychological effects caused by the physical disability. Notwithstanding the fact, physical activities and sports increase the disabled self-confidence, dependence, and discipline, and helps his/her to integrate into society. These objectives are as a matter of fact directed to everyone regardless of personal traits and individual characteristics. Sports activities gives the disabled a strong balanced personality, and based on the aforementioned there were no clear evidence that there are differences in trait anxiety that could be attributed to the studied variables. These results are to some extent is in line with the study of Ahmed Al-Shehri (1997), where the obtained results revealed that there were no differences in the level of anxiety that could be attributed to age, educational level or disability's degree. Besides.

The third hypothesis stipulated a correlation between trait anxiety and sports achievement motivation variables (Motive to Achieve Success and Motive to Avoid Failure). The data set out in table 7 clearly indicate that there was a positive correlation between trait anxiety and motive to achieve success. The findings are consistent with a study conducted by Tripathi, & Agrawal (1978), on university students, where they found a negative relationship between anxiety and achievement motivation in sport, and Jindal & Banda (1982) study, which drawn the same conclusion from his own research experience (Rashad, 1994, pp. 409-413). Also, they indeed corroborate what Hashem Mahmoud (1995) noted that there was a negative relationship between high trait anxiety and achievement motivation, that is, the higher the level of anxiety, the lower the scores of achievement motivation in sport (Al-Sharqawi, n.d, p. 243). Clearly, anxiety is related to the athlete's negative expectations towards his/her abilities and capabilities and perception of failure, which is one of the most important factors that limit his preparations in sports achievement situations, which leads to a decrease in his/her motivation to achieve success, and this explains the inverse relationship between these two variables; that is, the greater the level of anxiety, the lower the scores of motive to achieve success. Furthermore, it was also found that there is a significant positive relationship between trait anxiety and motive to avoid failure; that is, the higher the level of anxiety, the greater the scores of motive to avoid failure. Anxiety leads to exposure to stressful situations during trainings or competitions, as individuals show states of anxiety and panic disorders that lead to fear of failure. Moreover, people who strive to excel for fear of failing are somehow make the effort needed, and perform well, because thinking about failure is an abhorrent thing for people with such personality traits. They try to avoid failure and accompanying disturbances, anxiety, depression as

well as self-criticism (Ratib, 2000, p. 190). The results, in a point of fact, are consistent with a study mentioned previously of Godfrey's study, where he found students who gain high scores in motive to avoid failure also get high scores in trait anxiety. His study is impressive in the light of the fact that it supports Rashad Moussa's study, where he found that there were differences between individuals with high score achievement motivation and individuals with low score achievement motivation attributed trait anxiety in favour of individuals with low score achievement motivation (Rashad, 1994, pp. 409-426). Only few researches in fact indicate that fear of failure is the most important reason that makes athletes feel nervous and anxious. This direct fear comes as a result of fear of failing in matches, losing some points, or performing poor during the competition (Ratib, 2000, p. 189). This explains the fact that the positive-direct correlation between motive to avoid failure and trait anxiety, that is, the greater the level of anxiety in physically disabled athletes, the greater the score of motive to avoid failure.

## **8- CONCLUSION**

Generally speaking, it is possible to conclude, from the outcomes of our investigation, that only the second hypothesis was partially proved. Further, it can also be concluded that the trait feature of anxiety among the physically disabled is considered one of the important psychological factors that affect sports achievement motivation, and it should be according alleviated because of its adverse association with the motive to achieve success among the physically disabled athletes.

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