

## Effect of Losing Weight on Some Psycho-Physical Symptoms of the Egyptian National Wrestling Team

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**Abstract:** The research aims at identifying the effect of losing weight on some psycho-physical symptoms of the Egyptian national wrestling team. The researcher used the experimental method of three groups design on a purposive sample of the Egyptian national wrestling team (the first wrestlers group losing less than 5% of their normal body weight, the second wrestlers group losing less than 7% of their normal body weight and the third wrestlers group losing less than 10% of their normal body weight). Moreover, conducted the psycho-physical symptoms index was applied onto the three groups. The most important results were that losing weight less than 5% of body weight does not affect the psycho-physical symptoms. While losing weight less than 7% of body weight moderately affects the psycho-physical symptoms and losing weight less than 10% of body weight largely affects the psycho-physical symptoms.

**Key words:** Losing weight % Psycho-physical symptoms % Wrestling

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### INTRODUCTION

Of the most important articles in the wrestling law that the wrestler involves in a weight commensurate to his body weight and in only one weight of the seven adults weights (55 - 60 - 66-74 - 84 - 96-120 kg ) [1] and the wrestler is not allowed to participate while registered any increase in his body weight. Therefore, many Egyptian wrestlers are subjected to lose weight with a great extent in order to take part in a weight classification that is less than their normal body weight to escape a champion, believing that they will win in the lesser weight classification as some wrestlers physical efficiency does not commensurate to their natural weight. The weight loss problem has become of the Egyptian wrestlers and coaches' vital problems, moreover became the first objective of some Egyptians wrestlers to lose weight and second to raise their standard. Some researchers reached out that the increase in the Egyptian wrestlers' weight loss percentage may lead to loss, injury or illness [2] although a large number of Egyptian wrestlers lose weight by up to 10%. Mahmoud [3] confirmed that the weight loss of the serious problems facing wrestlers in general and coaches should follow the scientific methods for losing weight, while there are other examples of number of wrestlers whom achieve results without losing weight such as the world wrestler

Karam Gaber, holder of the silver medal of the world championship on 2003, the world wrestler Mohammed Abdulfattah, holder of the silver medal of the Grand Prix championship on 2010 without losing weight (both was trained by the researcher). Moreover, of the positive examples is the Iranian wrestler Hashem Zadeh with weight not exceeding 100Kg defeated the Kazakh world and Olympic champion Tsurtsum with 120 kg in the 2006 World Cup in China and there are many other examples. The wrestler must have good physical and psychological status especially before tournaments. Practicing wrestling contributes to improve the balanced physical and psychological growth, also contributes to improve the wrestlers physical type as a result of the participation of most of body muscles in the combat, leading to achieve the principle of balanced in muscular development and increasing muscles mass and lacking the fat percentage. The international wrestling association has adopted some amendments in the game rules in Tehran (Iran) on 09. 07. 1998 in the occasion of the establishment of the world wrestling championship. The aim of these amendments to improve and develop the philosophy of wrestling to suit the twenty-first century aiming the comprehensive wrestling, world wrestling, creative and progressed practicing, wrestling as a skill attracting the public and wrestling and relying on the risk. Some amended rules of the international law were effective in January 1999 [4].

The researcher believes that the wrestler cannot carry out these amendments only if he possessed a great physical and psychological condition, the researcher notes as a coach of Egyptian national wrestling team that a large number of the Egyptian national wrestling team loses weight largely to participate in the tournaments. Losing many international tournaments is due to weight losing, the appearance of negative and unspecified psycho-physical symptoms when losing weight of the Egyptian wrestlers. Weight loss largely threatens some wrestlers to retire because of the repeated loss of games due to losing the excess weight, sanctioning number of the Egyptian national wrestling team due to addressing illegal anabolic steroids, which they use in order to assist in losing weight.

These points raised the researcher to subject this phenomenon to research and study, a study of the effect of losing weight on some psycho-physical symptoms of the Egyptian national wrestling team because of its importance to the Egyptians wrestlers' level and its negative impact on training and competitions. According to the researcher knowledge limits, no one searched the effect of weight loss on some psycho-physical symptoms of the Egyptian national wrestling team, where the negative psycho-physical symptoms lead to lack of entertaining practicing the sport of wrestling and when repeated many times within sports season may lead to burning the player and withdrawal from wrestling, The research primarily aims to identify The effect of losing weight for less than 5% of body weight on the psycho-physical symptoms level of the Egyptian national wrestling team, The effect of losing weight for less than 7% of body weight on the psycho-physical symptoms level of the Egyptian national wrestling team, The effect of losing weight for less than 10% of body weight on the psycho-physical symptoms level of the Egyptian national wrestling team, Differences between the three experimental groups (First Group losing weight less than 5%, the second group losing weight less than 7% and the third group losing weight less than 10%) in the level of psycho-physical symptoms of the Egyptian national wrestling team.

## MATERIALS AND METHODS

**Method of the Research:** The researcher used the experimental method of its steps and procedures because it suits the nature of the research, where used the experimental design of three experimental groups on the Egyptian national wrestling team.

**Society and Sample of the Research:** The 37 wrestlers of the Egyptian national wrestling team represent the research community who deliberately process weight losing. A purposive sample of 30 wrestlers was chosen of this community. The sample was divided according to weigh losing percentage to three equal experimental groups for equivalence. The first group (10 wrestlers) lose weight by a percentage less than 5%, the second group (10 wrestlers) lose weight by a percentage less than 7% and the third group (10) wrestlers losing weight by a percentage less than 10%) just before the 2010 Africa wrestling championship, where the researcher was the coach of the national team. Analysis of variation conducted to confirm the homogeneity of the three experimental groups on topics.

**Tools of Collecting Data:** References and studies related to weight loss, psycho-physical symptoms and wrestling, electrical scale, personal interviews with the Egyptian national wrestling team, Intentional standardized note for the Egyptian national wrestling team.

**The Research Tools:** The sportsmen psycho-physical symptoms index prepared by Mohamed Hassan Allawy aiming to measure some psycho-physical symptoms such as anxiety, tension, irritability and stomach, heart, respiratory circuit and sleeping troubles, which appear on the athletes in different stages pre-sports competitions [5]. Validity and reliability of the index were investigated.

## RESULTS AND DISCUSSION

The researcher applied the psycho-physical symptoms index on the Egyptian national wrestling team to the three research groups before the African youth and seniors wrestling championship on June 2010 in Cairo, after making sure that the wrestlers lose their weight according to their own aims (less than 5% - less than 7%- less than 10%).

Table 1 illustrates the significant differences between the pre and post-measurements averages of the weight change rates in the research three groups (less than 5% - less than 7% - less than 10%) of body weight at the significant level of 0.05 and coefficient of ETA in addition to weight change percentages, arithmetic means and percentages of the psycho-physical symptoms index.

Table 2 illustrates the ratio of the changing percentages between the three research groups (the first -the second- the third) in the psycho-physical symptoms index variable.

Table 1: Indication of the significant differences between the averages of pre- and post-measurements, coefficient of ETA and weight change ratios of the research three groups (less than 5% - less than 7% - less than 10%) of body weight, the arithmetic mean and percentages of the psycho-physical symptoms index. n=10

Variable	The weight								Psycho-Physical symptoms index	
	Pre-measurement		post-measurement		Difference between averages	Standard mistake ratio%	"T" value	weight change		
	A	S	A	S					A	%
The research groups										
First group less than 5%	83.60	12.01	79.50	11.32	4.10	0.26	15.77	4.90	9.10	22.75%
Second group less than 7%	84.30	11.60	78.65	10.63	5.65	0.35	16.14	6.70	14.30	35.75%
Third group less than 10%	82.90	13.50	72.10	11.36	7.80	0.71	10.98	9.41	34.60	86.50%

The indexed "T" value at the significant level of 0.05=1.83

Table 2: The ratio of the changing percentages between the three research groups (the first –the second- the third) in the psycho-physical symptoms index variable. N =30

No.	Variable	Groups	Averages	Differences of averages		
				First group less than 5%	Second group less than 7%	Third group less than 10%
1		First group less than 5%	9.10		57.14%	280.22%
2	Psycho-physical symptoms index	Second group less than 7%	14.30			141.95%
3		Third group less than 10%	34.60			

### DISCUSSION

Table 1 illustrates that the psycho-physical symptoms index level due to weigh loss as follows Concerning the first group (less than 5%), the psycho-physical symptoms index level came as average 9.10 and percentage 22.75%. Concerning the second group (less than 7%), the psycho-physical symptoms index level came as average 14.30 and percentage 35.75%. Concerning the third group (less than 10%), the psycho-physical symptoms index level came as average 34.60 and percentage 86.50%, The researcher realizes that the wrestler achieving less than 25% on this index means that there are no negative effects on the psycho-physical symptoms, while who achieves 25% to less than 60% the psycho-physical symptoms are moderately affected and achieving 60% to 10% the psycho-physical symptoms are grossly affected. That means that the psycho-physical symptoms level in the first group achieved an average of 9.10 and percentage of 22.75% indicating that the psycho-physical symptoms level does not affected in the first group due to losing weight. Both Abdelmonem [6] and Abou Bakr [7] confirmed that losing weight to less than 7% would not affect the physical statue. The second group achieved an average of 14.30 and percentage of 35.75% meaning that the psycho-physical symptoms moderately affected.

The researcher refers that losing weight to more than 5% is a start of high load. Moustafa [8] indicated that high load affects the wrestler's attention; while Elnegoumy [9] referred that losing extra weight negatively affects the physiological functions. Moreover, Abdelfattah [10] refereed that any defect or disorder leads to decrease in the body efficiency as whole, the body as one unit, the psychological side affected by the physical and physiological sides. The third group achieved an average of 34.60 and percentage of 86.50% meaning that losing weight grossly affected psycho-physical symptoms level, the researcher refers that losing weight to 10% leads to disorder in the body efficiency where Abdelfattah [10] refereed that disorder leads to decrease in body efficiency as well as the psychological side. Therefore, the first, second and third aims of the research are achieved.

Table 2 refers to the ratio of the changing percentage between the three experimental groups in the psycho-physical symptoms index variable as follows The changing percentage in the psycho-physical symptoms index between the first and second experimental groups was 57.14%. The changing percentage in the psycho-physical symptoms index between the first and third experimental groups was 280.22%. The changing percentage in the psycho-physical symptoms index between the second and third experimental groups was 141.95%.

Table 2 refers to the change percentage in the psycho-physical symptoms index between the first and second experimental groups by 57.14%, this means that the ratio of changing percentages was moderate. The psycho-physical symptoms between the first and third experimental groups were 280.22% in favor of the first group. This means that the weight loss of less than 10% of body weight is considered a high intensity load that affects sleeping, fatigue, anxiety, stomach problems, heart and respiratory cycle, which are all psycho-physical symptoms negatively affect the wrestler before the competition. Abu El-Nour [11] confirmed that the weight loss of less than 10% of body weight largely and negatively affects some of the physiological symptoms. Ibrahim [12], Mahmoud [13], Hafez [14] and Jain [15] indicated that wrestler weight loss must not exceed more than 7% of body weight because weight loss affects the physiological and psychological symptoms; thereby the fourth aim of the research achieved, There are differences in the psycho-physical symptoms level according to the percentage of weight loss, as higher the percentage of weight loss increased the psycho-physical symptoms levels. Losing weight until 10% of body weight negatively affect the psycho-physical symptoms level such as (fatigue - self-confidence - natural sleep - concentrating - abdomen pain - appetite - pain in the body - respiratory - anxiety - heart beats) more than the first and second groups.

### CONCLUSION

Losing weight for less than 5% of natural body weight does not negatively affect the psycho-physical symptoms level for the Egyptian national wrestling team. Losing weight for less than 7% of natural body weight with a moderate degree negatively affect the psycho-physical symptoms level for the Egyptian national wrestling team. Losing weight for less than 10% of natural body weight with gross degree negatively affects the psycho-physical symptoms level for the Egyptian national wrestling team.

Changing percentage between the first group (less than 5%) and the second group (less than 7%) is 57.14% in favor of the first group. Changing percentage between the first group (less than 5%) and the third group (less than 10%) is 280.22% in favor of the first group. Changing percentage between the second group (less than 7%) and the third group (less than 10%) is 141.95% in favor of the second group.

### Recommendation:

- C Losing weight of less than 5% for wrestlers participating in the championship does not negatively affect the psycho-physical symptoms.
- C Not to lose weight more than 7% for the Egyptian national wrestling team and it is preferred to be only once or twice a year and for major events such as Africa championship, world championship or the Olympic Games.
- C Wrestler should not subject to exhaustion by losing weight many times during the local season. Moreover, allowing him to participate in the national championships and the national team's experiments with up to 3 kg additional body weight. Its important that the national team structure include a masseur and a doctor in the international championships, following up the wrestler who clearly loses weight after the championship, especially those who lost the championships and presenting medical and psychological support.
- C Paying attention to the negative psycho-physical symptoms of the wrestlers and caution from repeated not to overall withdraw wrestling.
- C Applying the psycho-physical symptoms index and medical check up on the Egyptian national wrestling team before championships.
- C The wrestler who loses weight up to 10% of his body weight, his participation must be in a tight limit and only for major event under superior medical and psychological care.

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