

# CONTENT-ANALYSIS CONFOUNDING FACTORS IN SPORT ACTIVITIES OF POWERLIFTERS

**Galija M. Ljdokova, Kazan Federal University**  
**Kadriya R. Volkova, Kazan Federal University**

## ABSTRACT

*In this research the profound analysis of the distress factors in sports activity of powerlifters is submitted. In the course of the training and competitions the athlete is influenced by the circumstances interfering optimum sports activity. For carrying out the qualitative analysis of the distress factors for powerlifters we have studied statements comments of athletes and empirical results of our previous researches on definition of priority positions of the distress factors in training and competitive activities are used. As methods for this work the analysis of scientific literature on a research problem, observation, poll, the content analysis are used. Taking into account the results of a research received earlier oral and written poll of the leading Russian athletes-powerlifters is organized ( $n = 31$ ; men of  $n = 14$ , women of  $n = 17$ ). The content analysis of the distress factors is submitted taking into account gender differentiation as results of the analysis of men's and female questionnaires have shown distinctions in assessment of the distress factors. As respondents winners of the World games, world champions and Europe, champions of the international and national competitions, owners of sports ranks "Honored Master of Sports of Russia", "Master of Sports of Russia of the International Class" and "Master of Sports of Russia" have acted. Experience of the athletes having high sporting achievements on the Russian and international scaffold bears in itself important information for athletes, their trainers, organizers of sports competitions, the International federation of powerlifting. The received results submit the developed characteristic of the priority distress factors in training process and at competitions. The prospect of researches seems authors in development of recommendations for trainers on psychological training of athletes-powerlifters. Similar need is staticized by the need for psychological support of the athlete who not always has a possibility of the address to the expert.*

**Key words:** powerlifting, powerlifter distress factors, training activity, competition, sports psychology.

## INTRODUCTION

The sports career of the athlete directly depends on effective training activity and a successful performance at competitions. These provisions are fundamental for any kind of sport. The successful result of the athlete at competitions is a set of many components, including psychological preparation. Now the sports psychology as independent scientific discipline takes the priority place in career of the athlete. Absence of the qualified psychologist in team imposes certain obligations and powers on the trainer. In turn, shortage of specialized scientific and methodical literature and practical recommendations for trainers in questions of psychological assistance and support when training the athlete in concrete sport is observed.

The Olympic sports (Martin, J. 2012; Gould, D. and Maynard, I., 2009; Pensgaard, A.M. and Ursin, H., 1998) become an urgent subject for scientific research. Subjects of not Olympic sports unfairly remain unattended. Recently interest of sports psychologists is attracted by rather

young sport – powerlifting. Popularity, keen interest and recognition of powerlifting by the International Olympic Committee as sport forms a certain status of this sports discipline. The powerlifting is a power sport in which qualification of the athlete is determined by three exercises with a bar: squats, a press lying and deadlift. In spite of the fact that the I World Cup in the International Powerlifting Federation (IPF) version has been organized in 1972, now the powerlifting has big popularity (for example, 77 participating female from 24 countries and 112 participating male from 31 countries in the World Cup, Luxembourg, 09-15.11.2015).

The organization and realization of sports activity of the athlete is a labor-consuming and laborious work of a great number of experts. Sports training of the athlete was beyond physical long ago. The special provision of powerlifting defines need of complex and detailed studying of athletes. The powerlifting as a subject of a psychological research is presented by consideration of psychological types of students powerlifters (Tobacyk, J., K. Hilgenkamp, B.J. Talton and Livingston, M.M., 2006) and when studying an emotional state before a competition (Jensen, A.M., 2010). Also the interrelation between competitive uneasiness and productivity for powerlifters is defined (Judge, L.W., Urbina L., Hoover, D.L., Craig, B. et al., 2016).

"Examining issues concerning confounding factors within a particular sport provides a possibility to create a perfect training model for the athlete who is aimed at a high result" (Ljdokova, G.M., Ismailova, N.I., Panfilov, A.N. and Kaviev, A.F., 2015). The distress factors "interfere with optimum realization by athletes of motive tasks and psychological functions" (Gabov M. V., Martemyanov Y. G., Zinkevich D. A., 2007). In this regard, it should be noted that "the distress factors are the hindrances interfering achievement of high sports results" (Volkova, K.R., Ldokov, G.M., 2016). The purpose of the real research – definition of the priority distress factors in sports activity on the basis of the content analysis of statements of male powerlifters and female powerlifters.

## RESEARCH METHODS

The analysis of scientific literature on a research problem, observation, poll, the content analysis have been used as methods for this work.

To carry out the qualitative analysis of the distress factors among powerlifters, we have studied comments of athletes and have correlated them to empirical results of our previous researches (Ljdokova, G.M., Razzhivin, O.A. and Volkova, K.R., 2014; Ljdokova, G.M., Ismailova, N.I., Panfilov, A.N. and Kaviev, A.F., 2015) on definition of priority positions of the distress factors in training and competitive activities.

Taking into account the results of a research received earlier we have organized oral and written poll of the leading Russian athletes-powerlifters ( $n = 31$ ; men of  $n = 14$ , women of  $n = 17$ ). As respondents winners of the World games, world champions and Europe, champions of the international and national competitions, owners of sports ranks "Honored Master of Sports of Russia", "Master of Sports of Russia of the International Class" and "Master of Sports of Russia" have acted. Within maintaining confidentiality names of athletes aren't entered. It was offered to respondents to comment on the dominating distress factors.

In this research the qualitative analysis of the most important distress factors in sports activity of powerlifters is submitted. Experience of the athletes having high sporting achievements on the Russian and international scaffold bears in itself important information for athletes, their trainers, organizers of sports competitions, Federation of powerlifting of Russia and International Powerlifting Federation.

## RESEARCH RESULTS

For respondents the priority (dominating) distress factors which are shown during the training and competitions have been offered. Based on results of a research (Ljdokova, G.M., Ismailova, N.I., Panfilov, A.N. and Kaviev, A.F., 2015), these factors are presented taking into account gender differentiation as results of the analysis of men's and female questionnaires have shown distinctions in assessment of the distress factors (see table 1-4).

<b>Table 1</b>			
<b>THE PRIORITY DISTRESS FACTORS IN TRAINING ACTIVITY FOR MALE POWERLIFTERS</b>			
№	The distress factors	Rank	Average grade
1	Traumas	I	2
2	Physical exhaustion (fatigue, constant departures on competitions)	II	4,33
3	Mechanical hindrances (problems with shells, sports equipment, lack of qualitative stock)	III	4,83

<b>Table 2</b>			
<b>THE PRIORITY DISTRESS FACTORS IN TRAINING ACTIVITY FOR FEMALE POWERLIFTERS</b>			
№	The distress factors	Rank	Average grade
1	Emotional pressure (nervousness, bad mood)	I	2,67
2	Physical exhaustion (fatigue, constant departures on competitions)	II	2,78
3	Traumas	III	3,89

<b>Table 3</b>			
<b>THE PRIORITY DISTRESS FACTORS IN COMPETITIVE ACTIVITY FOR MALE POWERLIFTERS</b>			
№	The distress factors	Rank	Average grade
1	Traumas	I	2,16
2	Physical exhaustion (fatigue, constant departures on competitions)	II	4
3	Emotional pressure (nervousness, bad mood)	III	4,17

<b>Table 4</b>			
<b>THE PRIORITY DISTRESS FACTORS IN COMPETITIVE ACTIVITY FOR FEMALE POWERLIFTERS</b>			
№	The distress factors	Rank	Average grade
1	Emotional pressure (nervousness, bad mood)	I	2,67
2	Physical exhaustion (fatigue, constant departures on competitions)	II,5	4,89
3	Traumas	II,5	4,89

## RESEARCH RESULTS DISCUSSION

Results of Tables 1 and 2 show the three of the most significant distress factors for men and women during the training.

## Injuries

*Comment 1: The trauma is a defining factor on change of the strategic plan of training which has to be formed on all preparation. If a trauma small (a microtear, the remains of hematomas, etc.), then perhaps use bandage equipment: bandage, overalls for squats and deadlift, a shirt for a press lying, a sling, plait and other. If there are fears on development of a trauma, then the training stops.*

*Comment 2: Traumatized during the training forces down all my training cycle. If a trauma insignificant, then it is possible to reconstruct training process on restoration, and after to continue to prepare for competitions. If a trauma serious, then preparation has to be stopped.*

*Comment 3: Very often because of a trauma full preparation breaks. At me 2 years the groin is injured therefore draft to hurt very much. Naturally, it has led to recession in this movement.*

*Comment 4: In 12 years of sports activities I had no serious injuries. The frivolous trauma (a hip muscle strain) during the interseasonal period hasn't broken to me all preparation for the Championship of Russia among juniors though has emotionally a little brought down as I didn't foreknow how many there will take place restoration.*

The traumatism problem in sport is particularly acute enough. The trauma is the serious distress factor in the course of training of the powerlifter. As a result of a trauma the strategic plan of training is exposed "to change", "the trauma forces down all my training cycle" and "full preparation breaks". The problem of traumatism is complicated by the fact that terms of treatment and a complete recovery are unknown "didn't know how many there will take place restoration". In this regard, it is important to be extremely attentive to itself, to follow safety measures, to listen to opinion of the trainer and skilled athletes.

## Physical exhaustion

*Comment 1: The exhaustion, as a rule, reduces or modifies a training. If the exhaustion occurs at responsible (control) training, then the training is postponed.*

*Comment 2: When there is a fatigue, even not really difficult training becomes heavy. There is a laziness, some exercises or additional approaches are just done without desire, apathy and to competitions appears.*

*Comment 3: In principle, I overcome physical exhaustion.*

Important aspect in training activity of the powerlifter is development of the general endurance and increase in level of working capacity. The physical exhaustion leads to disorganization of activity of the athlete, emergence of irritability and as extreme reaction, to desire to leave sport. Possible solutions of this task: physical (adaptation of the athlete to loadings, rational use of stocks of energy), psychological (various ways of unloading of the central nervous system – music, meditations, the trainer's conversation with the athlete, etc.).

## Mechanical hindrances

*Comment 1: If there are serious, considerable hindrances, new "untried" stock, then the training is reduced or modified. At insignificant hindrances I carry out work with*

*the central nervous system, I recustomize myself for work in unnatural conditions and I put, thereby, motivation, new to myself. In particular it affects when the athlete is close to force peak, to peak of a sports, competitive form when the saved-up nervous tension has the most advanced stage.*

*Comment 2: Lack of qualitative stock complicates to me process of preparation for competitions because there is a habit to a certain equipment or a shell. For example, earlier I trained without professional racks therefore it was more difficult to me to adapt to them at competitions. If in the gym there is no variety of exercise machines, then complexity in additional study of muscles appears.*

*Comment 3: For me reduces efficiency of a training bad equipment of the hall in which I am engaged. When began to train, the stock was very old. Training took place, but had an adverse effect on result.*

The reference point on technical and tactical training carries out an important role. Acts as a serious problem in training process, both "lack of qualitative stock", and "new "untried" stock". From the athlete readiness for fast adaptation for that sports equipment which takes place to be, for example, at a competition is required, but is absent on the place of a training. All this assumes not only physical training, but also good internal resistance to stress.

### **Emotional pressure**

*Comment 1: Emotions, of course, disturb, but if to overcome themselves at such moments, then become a little stronger, especially will power. During preparation, is closer to start of competitions there is such emotional failure, and it is normal, in it and will power of the athlete consists.*

*Comment 2: The emotional pressure most often is any household problems, diseases of children, shortage of money, etc. You think of all this much, all this turns in the head and prevents to concentrate at a training.*

*Comment 3: During study very quickly emotionally burned out as has mentally been loaded by homework. With experience of training it has learned to be disconnected from household and personal problems for the period of the training.*

The emotional pressure is characteristic of any activity connected with overcoming obstacles. The powerlifter testing emotional tension loses a qualitative training. But the athlete always has an opportunity to control and regulate the mental states. In it the trainer, the sports psychologist or possession of the athlete of skills of self-control will also be able to render essential support.

Data of Tables 3 and 4 show the three of the most significant distress factors at men and women during the competitions.

### **Injuries**

*Comment 1: The trauma, undoubtedly, influences, but there are such moments when at competitions there is a fight and the athlete, of course, has to overcome itself. Yes, the result can will a little lower, but there is such word it "is necessary".*

*Comment 2: The serious injury suffered at competitions forces to finish a performance and very strongly reduces motivation to further performances. At an insignificant trauma at competitions it is possible to use the anesthetizing medicines and to continue a performance, but the emotional spirit strongly gets off.*

*Comment 3: I had such experience. A day before start in the European championship I was traumatized and hardly went. Has woken up from burning pain in the morning. On the one hand, it had to upset me, but the fear of the trainer was stronger. He has even not learned about my trauma. The performance was successful.*

*Comment 4: Directly at competitions I had no injuries. When reel up bandage, put on on me overalls for squats and deadlift, a shirt for a press lying it was necessary to suffer from pain and discomfort.*

As a rule, athletes classify injuries on two groups: insignificant and considerable. Assessment of degree of a trauma is carried out on health of the powerlifter or the doctor who is present at competitions. The serious trauma exempts the athlete from participation. In some cases athletes by conscious effort are capable to overcome pain and "the slight physical injury is compensated by a psychological spirit".

### **Physical exhaustion**

*Comment 1: At competitions is closer to the third exercise, to deadlift, of course, there is a physical exhaustion, but besides it "is necessary"! It is just necessary to overcome itself. I at competitions after squats surely drink power engineering specialists that the exhaustion has a little departed.*

*Comment 2: Constant departures on competitions very strongly force down the central nervous system; to an organism hard constantly to work at a limit. If there is a high exhaustion, then it is necessary to refuse a performance. It is the best of all to place priorities in performances at competitions.*

The physical exhaustion because of competitive fight, duration of competitions, can lead the number of approaches to considerable decrease in strength of the athlete. Even skilled powerlifters feel physical exhaustion, but it is absolutely normal reaction to situations of uncertainty, extremeness (competition). The main objective of the trainer during this period – the adequate organization for the athlete of a rhythm of competitive process, the accounting of individual opportunities, and the athlete's task – adequate use of skills of self-control depending on a situation.

### **Emotional pressure**

*Comment 1: Skill, even sometimes the athlete's "genius" also consists in overcoming this emotional pressure during the competitions and the more so in use of this tension as emotional spirit. Possession of often is the limiting factor and with experience, and an experience of training. With regular work on mastering of the central nervous system I have an opportunity to seize this situation.*

*Comment 2: Nervousness at competitions is a normal phenomenon. I consider that always there has to be an easy nervous trembling. At a regular performance of nervousness becomes less. Very often nervousness appears when was having*

*rummaged in performances when decisive approach (a record, fight for the place) or when a performance at competitions of the highest rank is carried out. During nervousness easy weakness, uncertainty, absent-mindedness appears in muscles.*

*Comment 3: The emotional pressure doesn't force down during the competitions. The more terribly at competitions, the I am stronger. I am very often forced down by periods which come during competitions.*

*Comment 4: The emotional pressure at competitions often doesn't disturb, and helps to make what is impossible. At the World games I had such tension that I have made at that time impossible for myself. But there is such tension that disturbs, especially when was a beginner. The athlete is more professional, the better he begins to use this tension for the good for himself. Emotions disturb, but if to overcome itself at such moments, and then become a little stronger, especially will power.*

*Comment 5: At competitions there is a fear of defeat.*

*Comment 6: Interferes with me feeling that I bear responsibility for a good performance before our country, to those who sponsored my trip on competitions. Very much I worry before rising of a bar.*

*Comment 7: I try to dose emotions during the performances at competitions. My personal experience has shown that excessive nervousness only disturbs: I don't hear parting words of the trainer and teams of judges; in each corner of a body I feel the speeded-up and chaotic heart beat. Now I am able to work with nervousness, have found for myself optimum level which doesn't disturb, and promotes achievement of result.*

The prestarting and competitive emotional pressure in the form of nervousness, alarms, excitement and concern is characteristic of each athlete. The prestarting phenomenon (Puni, A.T., 1969) described by A. Ts. Puni is a favorable phenomenon which is characterized by a condition of alarm at easy prestarting excitement ("tension as emotional spirit", "always there has to be an easy nervous trembling"). Overexcitation has an adverse effect: "such tension that disturbs". From statements of skilled athletes in a question of emotional pressure it is possible to formulate a conclusion that ability to own emotions for obtaining positive result comes with experience of participation at competitions: "Possession of often is the limiting factor and with experience, and an experience of training"; "At a regular performance of nervousness becomes less"; "The athlete is more professional, the better he begins to use this tension for the good for himself". All this defines the importance of regular performances at competitions.

## CONCLUSIONS

In this work we have carried out the content analysis of statements of athletes-powerlifters of rather dominating distress factors which they face in training and competitive activities. During the research such distress factors have undergone active commenting during the competitions as a trauma and emotional pressure. It, in our opinion, is natural as any sports activity is accompanied by injuries and emotional efforts which the person uses during sports activities. Besides, this position is explained by two circumstances. First, competitions don't grant the right for correction of mistakes. If during the training period because of a trauma it is possible to modify training or to compensate them by additional exercises, then during the competitions accurate and faultless work is necessary. Secondly, conditions of competitions as

the competition is the culmination of sports activity of the athlete, all career of the athlete therefore the emotional pressure increases depends on success of a performance.

### SUMMARY

Thus, the received results submit the developed characteristic of the priority distress factors in sports activity of the athletes who are going in for powerlifting. The prospect of researches seems us in development of recommendations for trainers on psychological training of athletes-powerlifters. Similar need is staticized by the need for psychological support of the athlete who not always has a possibility of the address to the expert.

### ACKNOWLEDGMENTS

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

### REFERENCES

- Gabov M. V., Martemyanov Y. G., Zinkevich D. A., (2007). Influence of the distress factors on competitive activity of the qualified fighters. *Theory and practice of physical culture*, 10, 15-16.
- Gould, D. and Maynard, I., (2009). Psychological Preparation for the Olympic Games. *J Sports Sci*, 27(13), 1393-408.
- Jensen, A.M., (2010). A Mind-Body Approach for Precompetitive Anxiety in Powerlifters: 2 Case Studies. *Journal of Chiropractic Medicine*, 9, 184-192.
- Judge, L.W., Urbina L., Hoover, D.L., Craig, B. et al., (2016). The Impact of Competitive Trait Anxiety on Collegiate Powerlifting Performance. *J Strength Cond Res*. (In the press).
- Ljdokova, G.M., Ismailova, N.I., Panfilov, A.N. and Kaviev, A.F., (2015). Gender Aspects of Confounding Factors in the Preparation of Powerlifters. *Biosciences biotechnology research Asia*, 12(1), 393-399.
- Ljdokova, G.M., Razzhivin, O.A. and Volkova, K.R., (2014). Confounding Factors in Sport Activities of Powerlifters. *Life Science Journal*, 11(8), 410-413.
- Martin, J. (2012). Mental Preparation for the 2014 Winter Paralympic Games. *Clinical journal of sport medicine*, 22(1), 70-73.
- Pensgaard, A.M. and Ursin, H., (1998). Stress, Control and Coping in Elite Athletes. *Scand J Med Sci Sports*. 8(3), 183-189.
- Puni, A.T., (1969). Psychological preparation for a competition in sport. Physical culture and sport, Moscow.
- Tobacyk, J., K. Hilgenkamp, B.J. Talton and Livingston, M.M., (2006). Psychological Types of University Powerlifters. *Journal of Psychological Type*. 66 (1), 1-6.
- Volkova, K.R., Ldokov, G.M., (2016). The analysis of the distress factors in training and competitive activity of powerlifters taking into account gender differentiation. *Modern high technologies*, 2(2), 302-306.