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обнаружено, что подтаранная высота свода стопы, не находящаяся в нейтральном положении, эффективна для достижения баланса и функциональной активности.

**Ключевые слова:** Детский церебральный паралич, характеристики стопы, баланс, мобильность.

# EPIDEMIOLOGICAL FEATURES OF THE BACK PAIN AMONG AZERBAIJAN NATIONAL WRESTLING TEAM SQUAD IN 2018-2019

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Annotation. The study was aimed to determine the back pain rewiev among athletes. It is clear that, this problem is basic cause of the disability of the wrestlers. If we are able to determine of the root of this problem and risk group of exercises (treaning part), it is possible that, to dicrease of the back pain among wrestlers. For this study, epidemiological analysis also very important.

**Key words:** back pain, low back muscles spasm, epidemiology of the back pain exercise therapy, Azerbaijan wrestling, rehabilitation and physiotherapy.

Actuality. About 80 percent of the population suffers from lower back pain at some point in their life. People are at a higher risk of chronic and acute back injuries due to their lifestyle [1]. Athletes have an increased risk of injury to the lumbar (lower) spine due to physical activity [5]. Whether it's sports, skiing, basketball, soccer, ice skating, running, golf or tennis, wrestling, the spine is subjected to great stress, absorption of pressure, twisting, turning and even bodily shock[5]. Although the entire spine

is used in sports, it is estimated that 5–10 percent of all sports injuries are associated with the lumbar (lower) spine. Many cases of low back pain in athletes may be associated with a specific event or injury; others are caused by repeated light injuries that result in microtrauma [1, 5].

As in the rest of the world, the problem of back pain is increasing in Azerbaijan 2000-2019. In many publications, this is due to sedentary lifestyle, obesity, diet quality, environmental pollution, bad habits. While, evidence show that, this problem is also increasing among athletes who are active lifestyles [5]. Comparing modern sport to 20<sup>th</sup> century sports, we find that acceleration, endurance and agility are increasing in all areas of sports. For example, if we look at modern wrestling we can see how fast this type of sport is. As a result, there is some increase in injuries and anxiety in athletes.

Sport medicine and rehabilitation is developing day-to-day and different physiotherapy and treatment methods are emerging. For example, kinesio taping, different exercises therapy methods as Complex Core plus - sport rehabilitation program by (Roman Jahoda). Determining which of them is most effective requires a long time and difficult medical observation. So it takes more time and effort to regain the ability move, to increase physical activity, to minimize the complications and side effects of surgery at the expense of the physical abilities of the body.

Over the past several decades, the health benefits of regular participation in sport activities has been promoted[8]. While the health benefits of exercise outweigh the risks, injuries associated with sports have become common place. Estimates of sport and exercise related injuries range from 9.8 million annually in the United Kingdom to 2.7 million annually in the Netherlands[8]. In Sweden, a survey found that 22.5 sports-related injuries per 1000 inhabitants occur annually[6].

Sports-related injuries most often result in pain associated with soft tissue injuries, such as sprains, strains, and contusions[7]. While not serious, these injuries are often painful and result in temporary disability.

Low back pain is one of the most common diseases of the musculoskeletal system. It is associated with a considerable burden to patients and society. According to the global burden of

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disease study, low back pain is the number one disorder responsible for disability in the population (as calculated by the years lived with disability (YLD)) [2]. The point prevalence is reported to be as high as 33%. The total costs associated with back pain in The Netherlands are estimated at 3,5 billion euro in 2007. In the United States, the figure is over US\$50 billion [3].

Clinical guidelines for the management of low back pain have been issued in many countries around the world in order to promote rational care [4]. These guidelines provide clear agreement on the recommendations for first line care of acute low back pain [4]

It is clear that, this problem is basic cause of the disability of the wrestlers. If we are able to determine of the root of this problem and risk group of exercises (training part), it is possible that, to decrease of the back pain among wrestlers. For this study, epidemiological analysis also very important.

Wrestling is the oldest and most popular

sport kind in Azerbaijan. Based on many years of experience, I can say that wrestling is also one of the types of sports that require the most power, endurance, speed and physical health. However, like every professional sport, this type of sport does not endanger human health. However, engaging in this sport at a professional level also can result in some injuries. In general, as a result of epidemiological observations of injuries among wrestlers over the past two years, we have learned that back pain plays an important role. In epidemiological observation, we studied the epidemiological features of low back pain among wrestlers based on age, sex and type of wrestling. At the same time, as a result of a survey of 70 wrestlers, we received information about which exercises cause the most back pain.

**Material and methods.** Illness information wrestlers of the Azerbaijan National Team within 2018-2019.

Questionnaire test. Among 70 wrestlers

# Low back pain often occurs after what exercises?

- A) After match training (wrestling)
- B) After physical training (weightlifting)
- C) When had been match (wrestling) and physical (weightlifting) trainings in same day

**Results.** The research was conducted at the training base of the Azerbaijan Wrestling Federation among athletes engaged in Greco-Roman, freestyle, women's wrestling.

We would like to inform you that, in 3 age groups (15-17, 17-20, over 20 years old), about 80 athletes in Greco-Roman wrestling, about 90 athletes in freestyle, 30 athletes in women's wrestling participated in daily training sessions in the training base of the Azerbaijan Wrestling Federation in 2018-2019.

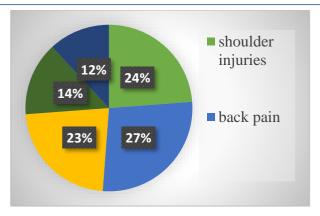
The reasons why athletes (engaged in all three wrestling style) applied to the medical department within two years were investigated.

75 Greco-Roman wrestlers applied to the medical department 142 times in 2 years. Of

these 59,15±4,12%, (84) were related to various injuries. Others were related to internal diseases, infectious diseases, acute respiratory diseases and so on. Some of injuries which cause serious damage was involved in this statistical calculation. While some injuries are not included in these calculations, because there are injuries that occur on a daily basis, but do not affect the training of athletes and they can continue training with various tapes. For example, slight bruising of the finger phalanges, nosebleeds, oral bleeding.

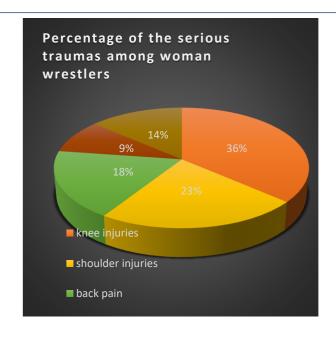
 $23,80\pm4,64\%(20)$  shoulder injuries,  $27,38\pm4,86\%(23)$  back pain,  $22,61\pm4,56\%(19)$  knee injuries,  $14,28\pm3,81\%(12)$  ankle injuries,  $11,9\pm3,53\%(10)$  joint dislocations and bone fractures suffered among wrestler in 2018/19.



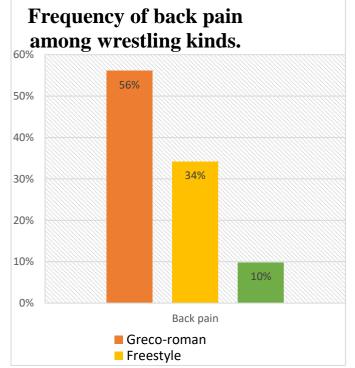


A similar situation was observed freestyle wrestlers. Almost 88.88±3,31% (80 wrestlers) applied to the medical department 135 times in two years. 48.89±4,30% (66) of them were related to various complaints (internal diseases, infectious diseases, acute respiratory diseases, nose and mouth injuries, etc.), and 51.11±4,30% (69) were related to serious injuries received during training. Of the injuries, 30.43±5,53% (21) were due to knee injuries, 23.18±5,08% (16) were due to shoulder injuries, 20.28±4,84% (14) were due to back pain, 17.39±4,56% (12) were due to ankle injuries, 8.69±3,39% (6) accounted for joint dislocation and bone fractures.

There were fewer injuries among female wrestlers than male wrestlers. There were 53 visits to the medical department in two years, of which only 41.50±6,76% (22) were related to trauma. 36.36±6,60% (8) of the injuries were knee injuries, 22.72±5,75% (5) were shoulder injuries, 9.09±1,98% (2) were ankle injuries, 18.18±2,30% (4) were back pain, 13.63±2,17% were (3) had fractures of various joints and bone fractures.



As a result of the analysis of the results of appeals to the medical department, it was found that the most back pain problems occurred among athletes engaged in Greco-Roman wrestling

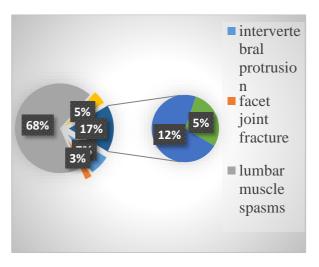


12.19±2,26% (5 people) of the back pain cases was in 14-17 age group, 34.14±2,72% (14 people) was in 18-20 age group, 53.65±7,78% (22 persons) was in over 20 years age group among 41 back pain cases.

4,87±3,36% (2) back pain cases have occurred result of spondylolisthesis, 17,07±5,87% (7) back pain cases have occurred result of intervertebral



hernias 12,19±5,10% (5) lumbar, 4,87±3,36% (2) cervical), 7,31±4,06% (3) back pain cases have occurred result of intervertebral protrusion, 1 back pain case has occurred result of the facet joint fracture, 68,29±7,26% (28) back pain cases have occurred result of lumbar muscles spasms.



We conducted a survey among athletes (70 people) to determine the most likely form of the exercise that is cause of the back pain. According to a survey of 70 people,  $14.28 \pm$ 4.18% (10) of athletes had back pain after most wrestling exercises,  $31.42 \pm 5.54\%$  (22) only after weightlifting exercises, and 48.57  $\pm$ In 5.97% (34) after when weightlifting and wrestling were found on the same day.  $5.71 \pm$ 2.77% (4) said it did not depend on training. As a result, it turned out that the most common cause of back pain among athletes in Greco-Roman wrestling is weightlifting exercises 2-3 times a week. Problems occur when there is a training program 2-3 times a when weightlifting exercises wrestling exercises are combined on the same day. Likely, the muscles that are under physical load cannot recover and cause a second wrestling exercise to loosen up of muscles and occur the back pain of the wrestlers.

It was also observed that athletes did not perform their movements properly during weightlifting exercises. One of the main causes of back pain is the inability of athletes to maintain their posture during squats and push-ups barbell from the ground.

**Conclusion.** Back Pain is the second most common injury among Greco-Roman wrestlers (27.38%), the third most common injury among freestyle wrestlers (20.28%) and the fourth most common among female wrestlers (18.18%).

12.19 % (5 people) of the back pain cases was in 14-17 age group, 34.14% (14 people) was in 18-20 age group, 53.65% (22 persons) was in over 20 years age group among 41 back pain cases.

2 (4,87±3,36%) back pain cases have occurred result of spondylolisthesis, 7 (17,07±5,87%) back pain cases have occurred result of intervertebral hernias (5 (12,19±5,10%) lumbar, 2 (4,87±3,36%) cervical), 3 (7,31±4,06%) back pain cases have occurred result of intervertebral protrusion, 1 back pain case has occurred result of the facet joint fracture, 28 (68,29±7,26%) back pain cases have occurred result of lumbar muscles spasms.

As a result, it turned out that the most common cause of back pain among athletes in Greco-Roman wrestling is weightlifting exercises 2-3 times a week. Problems occur when there is a training program 2-3 times a day, when weightlifting exercises and wrestling exercises are combined on the same day.

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# ЭПИДЕМИОЛОГИЧЕСКИЕ ОСОБЕННОСТИ БОЛЕЙ В СПИНЕ СРЕДИ СПОРТСМЕНОВ ФЕДЕРАЦИИ БОРЬБЫ АЗЕРБАЙДЖАНА В 2018-2019 ГОДАХ

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Аннотация. Боль в спине является первой наиболее распространенной травмой среди борцов греко-римского стиля (27,38±4,86%), (отсутствует у каких борцов она является второй распространенной травмой), третьей распространенной травмой среди борцов вольного стиля (20.28±4,84%) и четвертой по распространенной травмой среди борцов женского стиля (18.18±2,30%).

 $12.19\pm2,26\%$  (5 человек) случаев боли в спине обнаружены у спортсменов в возрастной группе 14-17 лет,  $34.14\pm2,72\%$  (14 человек) были в возрастной группе 18-20 лет,  $53.65\pm7,78\%$  (22 человека) были в

возрасте старше 20 лет, среди 41 в 2018-2019.

2 (4,87±3,36%) боли в спине произошли в результате спондилолистеза, 7(17,07±5,87%) боли в спине произошли в результате межпозвонковых грыж, 5 (12,19±5,10%) в области поясничного отдела, 2 (4,87±3,36%) в области шеи, 3 (7,31±4,06%) боли в спине произошли в результате межпозвонкового выпячивания, 1 боли в спине в результате разрушающего напряжения (перелом) фасеточного сустава, 28 (68,29±7,26%) в результате спазмов поясничных мышц.

В результате выяснилось, что наиболее распространенной причиной болей в спине у спортсменов в греко-римской борьбе являются упражнения по тяжелой атлетики 2-3 раза в неделю. Проблемы возникают, когда упражнения по тяжелой атлетике и борьбе сочетаются в один и тот же день.

**Ключевые слова:** боль в спине, спазмы мышц спины, эпидемиологии боли в спине, спортивная терапия, азербайджанская борьба, реабилитация и физиотерапия.

# 2018-2019-CU İLLƏRDƏ AZƏRBAYCAN GÜLƏŞ FEDERASİYASININ İDMANÇILARI ARASINDA BEL AĞRISININ EPİDEMİOLOJİ XÜSUSİYYƏTLƏRİ

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Annotasiya. Bel ağrısı, ən çox Yunan-Roma güləşçiləri arasında rast gəlinən zədədir (27,38±4,86%), (ikinci yoxdur), üçüncü ən çox rast gəlinən zədə sərbəst güləşçilər arasında (20.28±4,84%) və dördüncü ən çox qadın güləşçiləri arasında müşahidə edilmişdir (18.18±2,30%).

2018-2019-cu illərdə 41 bel ağrısı hallarında 12.19±2,26% (5 nəfər) 14-17 yaş qrupunda, 34.14±2,72% (14 nəfər) 18-20 yaş qrupunda, 53.65±7,78% (22 nəfər) 20 yaşdan yuxarı yaş qrupunda biruzə vermişdir.

2018-2019-cu illər ərzində baş verən bel ağrılarının 2-si (4,87±3,36%) spondilolistez, 7-si ((17,07±5,87%) ((5 (12.19±5,10%) bel, 2



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(4,87±3,36%)) boyun bölgəsi) belin intervertebral yırtıqları, 3-ü(7.31±4,06%) intervertebral protrüziya, 1-i (2,43±2,40) facet oynağının stress sınığı, 28-i (68,29±7,26%) bel əzələlərin spazmlarının nəticəsində baş vermişdir.

Nəticədə, Yunan-Roma güləşində idmançılarda bel ağrısının ən çox görülən səbəbi ağırlıq qaldırma və güləş məşqlərinin eyni gündə mövcud olduğu ortaya çıxmışdır.

**Açar sözlər:** bel ağrısı, arxa əzələlərin spazmları, bel ağrısı epidemiologiyası, idman terapiyası, Azərbaycan güləşi, reabilitasiya və fizioterapiya.

#### THE INVESTIGATION OF AFFECTIVE FACTORS TO THE DEVELOPMENT OF BASEBALL IN IRAN

(ADBTİA-nın kitabxanasının təcrübəsi əsasında)

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**Annotation:** The purpose of this study was The investigation of affective factors to the development of baseball in Iran.

**Keywords:** macro-level, meso-level, micro-level, sports development, baseball.

**Methodology:** The type of research is descriptive survey and measurement tool for recognition of baseball development factors in Iran, consists of one customized researcher made questionnaire, contains 62 closed questions. These questions measured three

levels of baseball development such as macrolevel variables (cultural and social factors, economic environment and political and legal environment with 10 questions), meso-level variables (financial support, Structure and organization of policies, the amount of sports participation, talent detection, sport supports, places and facilities, providing coaches and coaching development, national competition and scientific researches with 49 questions) and micro-level variables (3 questions) with 5-point Likert scale. Validity of questionnaire approved by 12 professors and baseball experts and the Cronbach's alpha test ( $\alpha$ = 97%) used for approving the reliability of this questionnaire. Statistic population consists of coaches, players and referees in both parts of baseball (men) and softball (women) from different cities of Iran. Due to this statistic population, the purposive sampling was used based on Morgan table. The descriptive statistical methods (Frequency, mean, percent and standard deviation) was used for analyzing data to describe variables in research community and the inferential statistics methods (Mann-Whitney and Friedman) was used for testing research hypotheses.

Results: The results of the research shows that meso-level with 2.18 mean rank, micro-level with 2.09 mean rank and macro-level with 1.73 mean rank, made the most important baseball development factors in Iran. Also among the macro-level factors, political environment factor; among the meso-level factors, sport facilities factor; and among the micro-level factors positive attitude for doing team sports activities are counted the most important baseball development factors in Iran.

Conclusion: According to the importance of above items and considering that no research has been done so far with this feature in the country, the need for research was felt for use of superior sports executives of the country, specially directors of Iran's baseball and softball association to get correct recognition of priorities of affective factors to development of baseball in Iran.

#### Introduction

Sport is no doubt one of important topic of each society and so many people do different kinds of sports and spend some of their times for it. Daily