Volume 3, Issue 2, February - 2025 ISSN (E): 2938-3803

FEATURES OF THE BODY OF TEENAGE GIRLS PLAYING SPORTS

Adilbekov T. T.
National University of Uzbekistan named after Mirzo Ulugbek

Mamatova Z. A.
Candidate of Biological Sciences, Associate Professor
National University of Uzbekistan named after Mirzo Ulugbek

Abstract:
The urgent task for our republic is the reproduction of the health of the nation. However, the health of teenage girls today is of particular concern, since the detection of congenital and early acquired pathology has increased - the reproductive potential of the nation suffers.

Keywords: Specificity of sports, concomitant diseases, development, duration and specific.

Web of Humanities: Journal of Social Science and Humanitarian Research

Introduction

The population of our republic, according to official statistics, is 28,639,900 (2012), of which girls under 15 - 4,976,564, from 15 to 19 years old - 1,968,994. Almost every fourth among the population is a teenager, the annual increase is 1.6%, it becomes obvious that in a few years our current teenagers are future parents. At the same time, the incidence among teenage girls is growing from year to year.

The poor level of medical knowledge and culture not only among teenagers, but also among their parents regarding reproductive health, as well as the lack of research on the state of reproductive health of certain groups of the population, including teenage girls involved in physical education and various sports, are obvious gaps in ensuring the health of the younger generation.

In just a few years since the massive influx of women into the sports arenas, clinicians and researchers in the field of sports medicine have learned a great deal about the medical problems that concern female athletes. The reproductive system of female athletes is determined by genetic and age-related characteristics, the duration and specific focus of training activities, the specificity of sports, concomitant diseases, and the presence of risk factors.

Sexual development. The onset and course of puberty are influenced by numerous factors. They are usually divided into internal (hereditary, constitutional, health status, body weight) and external (climatic, nutrition).

Genetic factor is the main factor influencing the rate of puberty.

The onset of the first “period” (menarche), the dynamics of the development of full menstrual cycles and the completion of puberty are determined to a greater extent by the level of physical development than by chronological age.

Body weight is especially important for menstrual function. It is known that heavier girls begin to mature earlier. Recently, many studies have shown that a certain body weight is necessary for the onset of menstruation. The following terms are proposed to denote this weight: "menstrual", "critical".

According to E.A. Bogdanova (2004), menstruation begins at a body weight of 47.8±0.5 kg with

Volume 3, Issue 2, February - 2025 ISSN (E): 2938-3803

a height of 154 cm. The connection between body weight and the rate of maturation is carried out through endocrine mechanisms and through the amount of fatty tissue in the body. It has been shown that for the onset of menstrual function, girls must have fat deposits of at least 17-22%.

F. Frisch (2003) links this amount of fat to the water content of the body: menarche will not begin until girls have reached a certain body weight, at which point the water content of the body should decrease to 59.8%. At this water content, the author believes that fat accounts for at least 17% of body weight.

The role of adipose tissue in puberty is explained by the fact that fat accumulates steroids, and especially progesterone, and also participates in the metabolism of estrogens, the conversion of which into an active form depends on its quantity. With the loss of body weight as a result of exhausting physical activity or starvation, secondary amenorrhea (absence of menstruation) occurs even in adulthood.

Body fat content is of particular importance for women involved in sports. The ratio of fat to lean (muscle) tissue is an important morphological factor that determines athletic performance. Among female athletes, gymnasts have the highest relative muscle mass content. Moreover, those who have achieved high athletic performance have the least amount of fat. Many Angoras associate the delay in puberty in female athletes with the level of athletic skill.

Most authors are of the opinion that the boundaries of sexual maturation of the female body are broad.

Pubertal development can progress rapidly (L. Wilkins) or occur gradually with relatively slow body growth. It can begin at 8-9 years and end at 17-18 years, i.e. the duration of the pubertal period can be from 2 to 10 years.

11The period of puberty begins with the appearance of the first signs of feminization of the figure - the hips become rounded due to the increase in the amount and redistribution of fatty tissue, the female pelvis begins to form.

Physiology of the 1st phase of puberty: enlargement of the mammary glands at 10-11 years, and the pubic bone at 11-12 years. This period ends with the onset of the first menstruation, the end of rapid growth of the body in length. The 2nd phase of puberty (14-17 years) mammary glands complete development, hair growth in the armpits begins at 13 years and is the last to complete its development. The menstrual peak becomes regular, the pelvis is finally formed, and the body's growth in length stops. Feminization of the figure and development of secondary sexual characteristics occurs under the influence of ovarian hormones and adrenal androgens.

Androgens accelerate skeletal growth. Estrogens cause maturation of bone tissue and ossification of growth zones of tubular bones. There are quite significant differences in the development and maturation of female athletes and not sportswomen. In studies conducted by sports physicians, retardation of sexual development was noted as a feature characteristic of female athletes in general.

In total, delayed sexual development of all degrees is detected in female athletes 20 times more often than in the population as a whole. Menarche in female athletes occurs almost a year and a half later than in girls in the population who do not play sports (13.8 ± 0.06 years and 12.3 ± 0.05 years). In terms of mammary gland development, female athletes lag behind the population. Taking into account specialization, it was found that acceleration of puberty (menarche 11.2 ±

Volume 3, Issue 2, February - 2025 ISSN (E): 2938-3803

0.21 years) was noted in game sports (basketball, volleyball), retardation - in artistic gymnastics, acrobatics, diving, track and field (long-distance running and sprint), judo. Retardation of sexual development may be accompanied by sexual hair growth in the absence of other signs of puberty. The time interval between the appearance of sexual hair growth and estrogen-dependent signs can take up to 4 years, respectively, during this entire period the body of girls will experience an increased influence of androgens.

Delay of the first menstruation in female athletes is recorded significantly more often than in the population, according to various authors - from 3 to 10 times. The onset of the first menstruation after 14 years is considered a delay in puberty, and is recorded 10 times more often in athletes than in those who do not play sports.

Timely diagnosis of pathology determines the possibility of maintaining a regular menstrual cycle and fertility.

Menstrual cycle. The menstrual cycle in hormonal "performance" consists of two phases: follicular (lasts from the first day of menstruation to ovulation, i.e. the release of the egg) and luteal (lasts from ovulation to the onset of menstruation). The production of ovarian hormones (estrogens and progesterone) is regulated by the hypothalamic-pituitary system. Under the influence of fluctuations in FSH and LH, the growth and maturation of follicles in the ovaries occurs, where estrogens and progesterone are produced. Regulation of the menstrual cycle occurs by the type of feedback under the influence of changes in hormone concentration. The meaning of the entire cycle is the maturation of the egg and its preparation for pregnancy. If pregnancy does not occur, then a menstrual reaction occurs, and then the entire cycle starts again.

Taking into account the phases of the menstrual cycle gives the coach and athlete an additional opportunity to correctly distribute training loads, helps to optimize the training process and increase performance

There are quite a lot of problems in women's sports. The most important problems are: choice of contraception method, regulation of the menstrual cycle, premenstrual syndrome, dysmenorrhea, anemia.

Premenstrual syndrome. It is observed in every fifth woman after 20 years and every second woman after 30. Premenstrual syndrome is a complex of symptoms that occurs 2-10 days before menstruation and disappears immediately after it begins. Symptoms of premenstrual syndrome: depression, fatigue, irritability, nervousness, pain in the mammary glands, pain in the lower abdomen, change in appetite, joint pain, headaches, increased body temperature. With heavy periods, a diet that excludes sufficient iron intake into the body, iron reserves are gradually depleted, and premenstrual syndrome becomes more pronounced.

Prevention of premenstrual syndrome: unsaturated fatty acids; magnesium, potassium, zinc; vitamins B6, C, A, E; hormonal contraceptives (Regulon, Novinet). Products containing caffeine (coffee, chocolate, strong tea, Coca-Cola) are excluded from the diet. In case of emotional stress, a daytime tranquilizer that does not cause drowsiness is taken.

Dysmenorrhea. Dysmenorrhea is characterized by cyclical paroxysmal pain in the lower abdomen associated with the onset of menstruation, general malaise, depression, irritability, drowsiness, sweating, nausea, vomiting, headache, fainting, leading to impaired performance. '0% of adult women and 80% of adolescents suffer from this pathology. () The main treatment is oral contraceptives (lindinet) and non-steroidal anti-inflammatory drugs. Antispasmodics,

Volume 3, Issue 2, February - 2025 ISSN (E): 2938-3803

vitamin therapy (vitamin B6), psychotherapy are effective in this pathology.

Adaptation of female athletes to different phases of the menstrual cycle should be carried out through test starts and training. High-level athletes should have experience of performing in competitions and during the menstrual phase

It is well known that physical education and sports have a positive effect on the human body. However, it remains a fact that sportsmen and women are susceptible to certain diseases. Research by N.S. Kutliakhmetov et al. (2005) has proven that these diseases are of a multisystemic nature and have unique developmental features.

In order for physical culture and sport to have an exceptionally invigorating effect, it is necessary:

I. correct organization of the training process with individualization and adequacy of loads;

1 elimination of neuropsychic overload;

(strict adherence to diet, rest, etc.

There are 2 groups of causes of diseases in female athletes:

1. not directly related to sports (external environmental influences - epidemics, infections, cooling, unfavorable environmental factors);

2. related to sports

- incorrect actions of the coach
- incorrect actions of the athlete

Any fatigue, especially overfatigue, is a pre-pathological condition, which creates a favorable background for the development of diseases, a decrease in resistance to infection. With overtraining, functional disorders of the internal organs, determined in various forms of neuroses, can become persistent and irreversible. The above is assessed by the body as stress.

Biological systems have the ability to adapt to loads that exceed the needs of normal daily activity. At the same time, the increase in loads must occur gradually so that the body has time to adapt to them and the system does not fail as a result of overload. With a rapid increase in load, the effect of training ceases and athletic improvement stops.

Adaptation to the body's needs during training occurs gradually, over a long period of time. Attempts to speed up this process can lead to injuries, illnesses, or overtraining. If the training process stops, the developed adaptive changes develop in the opposite direction. With inadequate training load, compensatory restructuring of the body also does not occur.

Physical exercises are accompanied by natural physiological changes at different system levels: changes in energy pathways, enzyme systems and neuromuscular responses, metabolism of substances (including hormones). These changes are specific to the type of training they are subjected to. Thus, strength training has little effect on endurance and vice versa.

To cope with increased physical activity, a strict diet/work/rest regime, and the specific daily routine of a girl athlete (and all these moments are of a stressful nature), the development of compensatory-adaptive mechanisms helps.

formed in the process of regular and competent training, supported by an evidence-based comprehensive training program. A comprehensive training program should include a number of different elements (aerobic, anaerobic, speed, strength and flexibility elements). It should involve all the main muscle groups in order to prevent imbalances in adaptive-compensatory restructuring and avoid injuries. Only a regular training stimulus ensures the adaptation process

Volume 3, Issue 2, February - 2025 ISSN (E): 2938-3803

and maintenance of its level. Without adequate repetitive training loads, athletic training either does not grow or returns to its original (before training) state. An individual reaction to training is observed.

The response to the same training stimulus is individual. Factors that determine the degree of response to training:

- genetic characteristics;
- degree of ripening;
- nutrition;
- previous training;
- environment;
- sleep and rest;
- stress, illness or injury;
- motivation, etc.

The training program should consist of various elements, namely preparation of the cardiorespiratory (aerobic) system, anaerobic preparation (power development), speed, development of neuromuscular skills, flexibility and psychological preparation.

I» during the year of training, the main focus should switch from one element to another, taking into account the type in which the athlete specializes, as well as her experience and level of maturity.

I (the program for improving general physical fitness includes 5 basic motor qualities: strength, endurance, speed, flexibility and coordination. A complete training program should include all of the above elements.

In addition, there are factors that determine the type of training program:

the age and maturity level of the athletes; the level of his previous training; the type of athletics for which the athlete is preparing.

The training process is the development of a new rational mode of metabolism and the activity of individual organs and systems under conditions of repeated and increasing physical loads. Undoubtedly, in this mode the functioning of the body is subjected to certain tests. If the adaptive-compensatory reactions of the body are imperfect, then increasing the intensity of training, as a rule, leads to their exhaustion and the formation or progression of one or another pathology. This moment is of key importance when working with adolescent athletes. Based on this, monitoring the state of adaptation mechanisms in the body helps to avoid a state of overstrain.

Tolerance and adequacy of physical activity are determined by the reserves expended by the body in the process of adaptation. This is called the cost of adaptation. The longer or stronger the impact of the damaging factor, the higher the cost of adaptation. Regulation of the activity of internal organs occurs due to changes in the activity of various parts of the autonomic nervous system. The very first response to the load is an increase in the tone of the sympathoadrenal system, which is based on catecholamines and other biologically active substances (1, 10). In this case, the heart rate increases, blood pressure changes, muscle activity increases, etc. The parasympathetic department is the next to react to the load, the activation of which leads to directly opposite effects (slower pulse, lower blood pressure, changes in vascular tone, etc.). It should be remembered that the sympathetic department gives the strongest reactions, but is

Volume 3, Issue 2, February - 2025 ISSN (E): 2938-3803

quickly depleted.

If the body cannot quickly correct the increased activity of the sympathoadrenal system, then processes associated with the toxic effect of catecholamines on cells develop, and the energy reserves of organs and tissues are depleted. It is the excessive excitation of the sympathetic section of the autonomic nervous system against the background of a lack of energy resources, the imperfection of the processes of correction of sympathotonia that is the main cause of sudden deaths and fatal heart rhythm disturbances during physical education and sports. With insufficient rest, inadequate (excessive) training, the reserves are not restored, each subsequent load becomes more and more harmful and obviously depleting.

In general, in the process of adaptation to physical and other stress, the following degrees are distinguished:

1. a state of satisfactory adaptation, when a certain lifestyle has been developed, which is maintained for a long time and is not accompanied by any pathological changes;
2. a state of specialized adaptation, when a healthy organism is trained for a certain activity, for example, physical exercise;
3. a state of functional stress of the adaptation mechanisms, when a sharp change in the regime, in particular, training, leads to a long-term restructuring of the body, without the possibility of a full replenishment of resources (occurs with a lack of rest, an unbalanced daily routine, the emergence of new risk factors, the transition to training after a long break), is a border zone between health and illness;
4. a state of unsatisfactory adaptation, or a stage of depletion of the body's reserves (observed during prolonged fatigue); in this phase, metabolic processes are disrupted down to the cellular level;
5. failure of adaptation, stage of formation of pathology of organs and systems.

In general, when under load, the body changes its operating mode, restructures the functioning of its systems in such a way as to minimize the negative impact of these loads. When violations occur, such restructurings occur in irrational modes, as a result of which adaptation reserves are depleted, and pathological processes increase.

Physical overstrain of the body is a pathological reaction in the body that occurs in response to an excessive level of functioning of one or another organ or system of organs. 11overstrain is a general painful reaction of the entire body, but is always characterized by a predominant confirmation of one or another system of the body.

Factors that reduce adaptive mechanisms

1. disruption of daily life, study, nutrition, sleep, etc.;
2. physical and mental trauma;
3. presence of foci of chronic infection;
4. training against the background of any disease;
5. training in changed climatic conditions without prior acclimatization.

The logical conclusion from the above is that a teenage girl involved in sports is at risk of developing reproductive disorders both during and after the period of sports, since she is constantly under the influence of provoking factors.

factors (stress, physical overload, emotions during competitions).

However, this does not mean that sports are contraindicated in adolescence. On the contrary, a competent sports program coupled with professional medical support guarantees success.

Volume 3, Issue 2, February - 2025 ISSN (E): 2938-3803

REFERENCES

1. Seydalieva L. D., Khairullaeva N. D. Comparative assessment of body indicators for highly qualified athletes specializing in cyclic sports //Mental Enlightenment Scientific-Methodological Journal. – 2024. – Т. 5. – №. 02. – С. 228-232.
2. Сейдалиева Л. Д., Хайруллаева Н. Д. РИВОЖЛАНИШНИНГ БОШЛАНҒИЧ ДАВРИДАГИ 6-7 ЁШЛИ ГИМНАСТИКАЧИ ҚИЗЛАРНИНГ ВЕСТИБУЛЯР АППАРАТИНИНГ РИВОЖЛАНИШИ //Innovations in Technology and Science Education. – 2022. – Т. 1. – №. 5. – С. 110-119.
3. Сейдалиева Л. Ж., Мусаева У. А., Серебряков В. В. Физическая работоспособность квалифицированных футболистов на различных этапах годичного цикла //Интернаука. – 2020. – №. 9. – С. 6-7.
4. Сейдалиева Л. Т., Шукурова С. С. ПРОБЛЕМЫ ОЖИРЕНИЯ СРЕДИ ПОЖИЛОГО НАСЕЛЕНИЯ В УЗБЕКИСТАНЕ //Вестник науки и образования. – 2024. – №. 5 (148)-1. – С. 102-105.
5. Шукурова С. С., Сейдалиева Л. Д. ИЗМЕНЕНИЕ ФУНКЦИОНАЛЬНЫХ ПОКАЗАТЕЛЕЙ СЕРДЕЧНО СОСУДИСТОЙ СИСТЕМЫ У СПОРТСМЕНОВ ЗАНИМАЮЩИХСЯ ХУДОЖЕСТВЕННОЙ ГИМНАСТИКОЙ //Вестник науки и образования. – 2024. – №. 4 (147)-3. – С. 33-35.
6. Шукурова С. С., Сейдалиева Л. Т. МИНЕРАЛЬНЫЙ СТАТУС СПОРТСМЕНОВ ПРИ ФИЗИЧЕСКОЙ НАГРУЗКЕ //Вестник науки и образования. – 2024. – №. 4 (147)-3. – С. 35-38.
7. Болтабаев М. Р. и др. О роли государства по широкому внедрению здорового образа жизни и дальнейшему развитию массового спорта //Fan-Sportga. – 2020. – №. 7. – С. 3-6.
8. Джамалова Н. А., Ахматов М. С. Влияние систем искусственного интеллекта на экономику и развитие компаний и стран //Вестник науки. – 2021. – Т. 3. – №. 5-1. – С. 65-70.
9. Джамалова Н. А., Ахматов М. С. Применение технологии нейронных сетей в бизнес среде //Вестник науки. – 2021. – Т. 3. – №. 5-1. – С. 71-76.
10. Болтабаев М. Р., Ахматов М. С., Султонов Ш. Ф. Многоуровневый системный подход к организации массовой спортивно-оздоровительной деятельности в Узбекистане //Fan-Sportga. – 2020. – №. 4. – С. 2-6.
11. Джамалова Н. А., Ахматов М. С. Применение технологии нейронных сетей в бизнес среде //Вестник науки. – 2021. – Т. 3. – №. 5-1. – С. 71-76.
12. Jumaqulov D. M., Boymatov X. X., Bollasov A. K. METHODOLOGY FOR IMPROVING PHYSICAL TRAINING OF CADETS OF THE MINISTRY OF EMERGENCY SITUATIONS ACADEMY //Proximus Journal of Sports Science and Physical Education. – 2024. – Т. 1. – №. 02. – С. 23-28.
13. Boymatov K. X. SPECIAL PHYSICAL PREPARATION OF LONG-DISTANCE RUNNING ATHLETES //Galaxy International Interdisciplinary Research Journal. – 2022. – Т. 10. – №. 9. – С. 180-186.

Volume 3, Issue 2, February - 2025 ISSN (E): 2938-3803

14. Boimatov K. X. Chronology of Records of Harder Run in Uzbekistan and in the World //Global Scientific Review. – 2022. – Т. 7. – С. 13-25.
15. Петрова Т. Н. и др. Поведенческие аспекты ожирения и избыточной массы тела у женщин //Известия Тульского государственного университета. Физическая культура. Спорт. – 2022. – №. 12. – С. 40-47.
16. Платунов А. И. Баскетбол как средство физического воспитания //Проблемы педагогики. – 2020. – №. 1 (46). – С. 86-88.
17. Платунов А. И. Решения проблем развития спортивных клубов //Наука, образование и культура. – 2020. – №. 8 (52). – С. 32-34.
18. Набиев Т. Э., Платунов А. И. ЦЕЛЕВОЙ ПОДХОД К РАЗВИТИЮ МАССОВОЙ ФИЗИЧЕСКОЙ КУЛЬТУРЫ И СПОРТА //ЖУРНАЛ СОЦИАЛЬНЫХ ИССЛЕДОВАНИЙ. – 2020. – Т. 3. – №. 5.
19. Туркменова М. Ш., Бабанов Ш. Ж. РАЗВИТИЕ ПЕДАГОГИЧЕСКОГО ТВОРЧЕСТВА У ПРЕПОДАВАТЕЛЕЙ ФИЗИЧЕСКОГО ВОСПИТАНИЯ И СПОРТА КАК ПЕДАГОГИЧЕСКАЯ ПРОБЛЕМА //Наука, образование и культура. – 2020. – №. 8 (52). – С. 40-42.
20. Бабанов Ш. Ж., Киенко Г. В. ЗНАЧЕНИЕ ЗАНЯТИЙ ПО ФИЗИЧЕСКОЙ КУЛЬТУРЕ В ОБРАЗОВАТЕЛЬНОМ ПРОЦЕССЕ СТУДЕНТА //Проблемы науки. – 2022. – №. 6 (74). – С. 72-74.
21. Бабанов Ш. Ж., Губкина А. Г. ПРОФЕССИОНАЛЬНО-ПРИКЛАДНАЯ ФИЗИЧЕСКАЯ ПОДГОТОВКА СТУДЕНТОВ ПРОФЕССИИ «ЯДЕРНАЯ ФИЗИКА» //Проблемы науки. – 2022. – №. 2 (70). – С. 55-57.
22. Халикова Л. С., Бабанов Ш. Ж. СТРУКТУРНОЕ ПОСТРОЕНИЕ УЧЕБНО-ТРЕНИРОВОЧНОГО ПРОЦЕССА (БОРЬБА ДЗЮДО) НА ЭТАПЕ СПОРТИВНОГО СОВЕРШЕНСТВОВАНИЯ //Проблемы педагогики. – 2021. – №. 6 (57). – С. 82-85.
23. Бабанов Ш. Ж., Сияев С. Р. ОЗДОРОВИТЕЛЬНАЯ ТЕХНОЛОГИЯ В ОБРАЗОВАТЕЛЬНОМ ПРОЦЕССЕ ПО ФИЗИЧЕСКОМУ ВОСПИТАНИЮ СТУДЕНТОВ //Проблемы науки. – 2023. – №. 2 (76). – С. 83-86.
24. Бледных Н. В., Бурнес Л. А. Национальные особенности подготовки преподавателей физической культуры к формированию здорового образа жизни студентов в Узбекистане //Наука и образование сегодня. – 2020. – №. 6-1 (53). – С. 55-56.
25. Бурнес Л. А., Туркменова М. Ш. УКРЕПЛЕНИЕ ЗДОРОВЬЯ СТУДЕНЧЕСКОЙ МОЛОДЕЖИ //Проблемы науки. – 2022. – №. 2 (70). – С. 52-54.
26. Бурнес Л. А., Киенко Г. В. ОСНОВНЫЕ ПРИЧИНЫ ТРАВМАТИЗМА НА ЗАНЯТИЯХ ФИЗИЧЕСКОЙ ПОДГОТОВКОЙ И СПОРТОМ В ВУЗЕ //Проблемы науки. – 2023. – №. 2 (76). – С. 81-83.
27. Еникеев Ш. Ф., Бурнес Л. А. СРЕДСТВА ФИЗИЧЕСКОЙ КУЛЬТУРЫ В ПОВЫШЕНИИ ФУНКЦИОНАЛЬНЫХ ВОЗМОЖНОСТЕЙ ОРГАНИЗМА //Наука, техника и образование. – 2024. – №. 1 (93). – С. 44-46.
28. Бурнес Л. А., Бледных Н. В. Исследования эмоциональной тревожности студентов на различных этапах обучения в вузе //Проблемы педагогики. – 2020. – №. 1 (46). – С. 82-84.

Volume 3, Issue 2, February - 2025 ISSN (E): 2938-3803

29. Бледных Н. В., Бурнес Л. А. Инновационные технологии формирования здорового образа жизни студенческой молодёжи //Наука, образование и культура. – 2020. – №. 8 (52). – С. 26-28.
30. Халикова Л. С., Бледных Н. В. Психолого-педагогический подход преподавателя к студентам на занятиях физического воспитания //Наука, техника и образование. – 2019. – №. 11 (64). – С. 84-86.
31. Халикова Л. С., Юсупов Р. С. Кредитно-модульная система в учебно-тренировочном процессе по гандболу //Наука и образование сегодня. – 2020. – №. 6-1 (53). – С. 57-58.
32. Халикова Л. С., Киенко Г. В. ПОВЫШЕНИЕ ФУНКЦИОНАЛЬНОГО СОСТОЯНИЯ СТУДЕНТОВ СРЕДСТВАМИ ФКиС (НА ПРИМЕРЕ СМГ) //Проблемы науки. – 2022. – №. 2 (70). – С. 45-47.
33. Халикова Л. С., Сияев С. Р. ФИЗИЧЕСКОЕ ВОСПИТАНИЕ КАК СПОРТИЗАЦИЯ ФИЗКУЛЬТУРНОЙ ДЕЯТЕЛЬНОСТИ НЕСПЕЦЕЛИЗИРОВАНЫХ ВУЗАХ //Проблемы науки. – 2022. – №. 6 (74). – С. 83-85.
34. Халикова Л. С., Исхакбаев Е. Э. СРЕДСТВА И МЕТОДЫ РАЗВИТИЯ СКОРОСТНО-СИЛОВЫХ КАЧЕСТВ У СТУДЕНТОВ, ЗАНИМАЮЩИХСЯ В СЕКЦИЯХ, НА ПРИМЕРЕ ВИДА СПОРТА ГАНДБОЛ //Проблемы науки. – 2023. – №. 2 (76). – С. 78-81.
35. Халикова Л. С., Абдурахманова А. А. ОРГАНИЗАЦИЯ ТРЕНИРОВОЧНОГО И СОРЕВНОВАТЕЛЬНОГО ПРОЦЕССА В СТУДЕНЧЕСКОМ СПОРТЕ ПО ГАНДБОЛУ //Проблемы науки. – 2024. – №. 6 (87). – С. 50-53.
36. Исхакбаев Е. Э., Халикова Л. С. МЕТОДИКА СОЗДАНИЯ ИНДИВИДУАЛЬНЫХ ПРОГРАММ ДЛЯ ЗАНЯТИЙ ФИЗИЧЕСКОЙ КУЛЬТУРОЙ, НАПРАВЛЕННЫХ НА УКРЕПЛЕНИЕ ЗДОРОВЬЯ //Наука, техника и образование. – 2024. – №. 1 (93). – С. 41-43.
37. Халикова Л. С., Киенко Г. В. Пути решения проблем в современном спорте //Наука, образование и культура. – 2020. – №. 8 (52). – С. 35-37.
38. Халикова Л. С. Адаптация к обучению студентов первого курса средствами физической культуры //Проблемы педагогики. – 2020. – №. 1 (46). – С. 89-91.
39. Дадабоева О. А. ЖИСМОНИЙ ТАРБИЯ ВА СПОРТ СОҲАСИДА МАРКЕТИНГНИ ТАКОМИЛЛАШТИРИШ //Academic research in educational sciences. – 2021. – Т. 2. – №. 7. – С. 270-275.
40. Дадабоева О. А., Оманова С. Г. ОСОБЕННОСТИ ФИЗИЧЕСКОГО РАЗВИТИЯ ДЕТЕЙ 15 16 ЛЕТНЕГО ВОЗРАСТА //Наука, техника и образование. – 2024. – №. 1 (93). – С. 49-51.
41. Бурнес Л. А., Туркменова М. Ш. УКРЕПЛЕНИЕ ЗДОРОВЬЯ СТУДЕНЧЕСКОЙ МОЛОДЕЖИ //Проблемы науки. – 2022. – №. 2 (70). – С. 52-54.
42. Abdullaeva, B. P. (2024). Different Teaching Methods in Interactive Education and The Teacher's Role. Pedagogical Cluster-Journal of Pedagogical Developments, 2(1), 189-195.
43. Abdullaeva, B. P., & Tadjibaeva, N. A. (2023). Physiology of children at the age of pre-school education. American Journal of Interdisciplinary Research and Development,17,3-6.