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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

**Медицинские новости Грузии**

საქართველოს სამედიცინო სიახლენი

**GEORGIAN MEDICAL NEWS**

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**GMN: Georgian Medical News** is peer-reviewed, published monthly journal committed to promoting the science and art of medicine and the betterment of public health, published by the GMN Editorial Board since 1994. GMN carries original scientific articles on medicine, biology and pharmacy, which are of experimental, theoretical and practical character; publishes original research, reviews, commentaries, editorials, essays, medical news, and correspondence in English and Russian.

GMN is indexed in MEDLINE, SCOPUS, PubMed and VINITI Russian Academy of Sciences. The full text content is available through EBSCO databases.

**GMN: Медицинские новости Грузии -** ежемесячный рецензируемый научный журнал, издаётся Редакционной коллегией с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения. Журнал индексируется в MEDLINE, отражён в базе данных SCOPUS, PubMed и ВИНИТИ РАН. Полнотекстовые статьи журнала доступны через БД EBSCO.

**GMN: Georgian Medical News –** საქართველოს სამედიცინო სიახლენი – არის ყოველთვიური სამეცნიერო სამედიცინო რეცენზირებადი ჟურნალი, გამოიცემა 1994 წლიდან, წარმოადგენს სარედაქციო კოლეგიისა და აშშ-ის მეცნიერების, განათლების, ინდუსტრიის, ხელოვნებისა და ბუნებისმეტყველების საერთაშორისო აკადემიის ერთობლივ გამოცემას. GMN-ში რუსულ და ინგლისურ ენებზე ქვეყნდება ექსპერიმენტული, თეორიული და პრაქტიკული ხასიათის ორიგინალური სამეცნიერო სტატიები მედიცინის, ბიოლოგიისა და ფარმაციის სფეროში, მიმოხილვითი ხასიათის სტატიები.

ჟურნალი ინდექსირებულია MEDLINE-ის საერთაშორისო სისტემაში, ასახულია SCOPUS-ის, PubMed-ის და ВИНИТИ РАН-ის მონაცემთა ბაზებში. სტატიების სრული ტექსტი ხელმისაწვდომია EBSCO-ს მონაცემთა ბაზებიდან.

**WEBSITE**

www.geomednews.com

## К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

1. Статья должна быть представлена в двух экземплярах, на русском или английском языках, напечатанная через **полтора интервала на одной стороне стандартного листа с шириной левого поля в три сантиметра**. Используемый компьютерный шрифт для текста на русском и английском языках - **Times New Roman** (**Кириллица**), для текста на грузинском языке следует использовать **AcadNusx.** Размер шрифта - **12**. К рукописи, напечатанной на компьютере, должен быть приложен CD со статьей.

2. Размер статьи должен быть не менее десяти и не более двадцати страниц машинописи, включая указатель литературы и резюме на английском, русском и грузинском языках.

3. В статье должны быть освещены актуальность данного материала, методы и результаты исследования и их обсуждение.

При представлении в печать научных экспериментальных работ авторы должны указывать вид и количество экспериментальных животных, применявшиеся методы обезболивания и усыпления (в ходе острых опытов).

4. К статье должны быть приложены краткое (на полстраницы) резюме на английском, русском и грузинском языках (включающее следующие разделы: цель исследования, материал и методы, результаты и заключение) и список ключевых слов (key words).

5. Таблицы необходимо представлять в печатной форме. Фотокопии не принимаются. **Все цифровые, итоговые и процентные данные в таблицах должны соответствовать таковым в тексте статьи**. Таблицы и графики должны быть озаглавлены.

6. Фотографии должны быть контрастными, фотокопии с рентгенограмм - в позитивном изображении. Рисунки, чертежи и диаграммы следует озаглавить, пронумеровать и вставить в соответствующее место текста **в tiff формате**.

В подписях к микрофотографиям следует указывать степень увеличения через окуляр или объектив и метод окраски или импрегнации срезов.

7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.

8. При оформлении и направлении статей в журнал МНГ просим авторов соблюдать правила, изложенные в «Единых требованиях к рукописям, представляемым в биомедицинские журналы», принятых Международным комитетом редакторов медицинских журналов - http://www.spinesurgery.ru/files/publish.pdf и http://www.nlm.nih.gov/bsd/uniform_requirements.html
В конце каждой оригинальной статьи приводится библиографический список. В список литературы включаются все материалы, на которые имеются ссылки в тексте. Список составляется в алфавитном порядке и нумеруется. Литературный источник приводится на языке оригинала. В списке литературы сначала приводятся работы, написанные знаками грузинского алфавита, затем кириллицей и латиницей. Ссылки на цитируемые работы в тексте статьи даются в квадратных скобках в виде номера, соответствующего номеру данной работы в списке литературы. Большинство цитированных источников должны быть за последние 5-7 лет.

9. Для получения права на публикацию статья должна иметь от руководителя работы или учреждения визу и сопроводительное отношение, написанные или напечатанные на бланке и заверенные подписью и печатью.

10. В конце статьи должны быть подписи всех авторов, полностью приведены их фамилии, имена и отчества, указаны служебный и домашний номера телефонов и адреса или иные координаты. Количество авторов (соавторов) не должно превышать пяти человек.

11. Редакция оставляет за собой право сокращать и исправлять статьи. Корректура авторам не высылается, вся работа и сверка проводится по авторскому оригиналу.

12. Недопустимо направление в редакцию работ, представленных к печати в иных издательствах или опубликованных в других изданиях.

**При нарушении указанных правил статьи не рассматриваются**.

## REQUIREMENTS

Please note, materials submitted to the Editorial Office Staff are supposed to meet the following requirements:

1. Articles must be provided with a double copy, in English or Russian languages and typed or compu-ter-printed on a single side of standard typing paper, with the left margin of **3** centimeters width, and **1.5** spacing between the lines, typeface - **Times New Roman** (**Cyrillic**), print size - **12** (referring to Georgian and Russian materials). With computer-printed texts please enclose a CD carrying the same file titled with Latin symbols.

2. Size of the article, including index and resume in English, Russian and Georgian languages must be at least 10 pages and not exceed the limit of 20 pages of typed or computer-printed text.

3. Submitted material must include a coverage of a topical subject, research methods, results, and review.

Authors of the scientific-research works must indicate the number of experimental biological species drawn in, list the employed methods of anesthetization and soporific means used during acute tests.

4. Articles must have a short (half page) abstract in English, Russian and Georgian (including the following sections: aim of study, material and methods, results and conclusions) and a list of key words.

5. Tables must be presented in an original typed or computer-printed form, instead of a photocopied version. **Numbers, totals, percentile data on the tables must coincide with those in the texts of the articles.** Tables and graphs must be headed.

6. Photographs are required to be contrasted and must be submitted with doubles. Please number each photograph with a pencil on its back, indicate author's name, title of the article (short version), and mark out its top and bottom parts. Drawings must be accurate, drafts and diagrams drawn in Indian ink (or black ink). Photocopies of the X-ray photographs must be presented in a positive image in **tiff format**.

Accurately numbered subtitles for each illustration must be listed on a separate sheet of paper. In the subtitles for the microphotographs please indicate the ocular and objective lens magnification power, method of coloring or impregnation of the microscopic sections (preparations).

7. Please indicate last names, first and middle initials of the native authors, present names and initials of the foreign authors in the transcription of the original language, enclose in parenthesis corresponding number under which the author is listed in the reference materials.

8. Please follow guidance offered to authors by The International Committee of Medical Journal Editors guidance in its Uniform Requirements for Manuscripts Submitted to Biomedical Journals publication available online at: http://www.nlm.nih.gov/bsd/uniform_requirements.html
http://www.icmje.org/urm_full.pdf
In GMN style for each work cited in the text, a bibliographic reference is given, and this is located at the end of the article under the title "References". All references cited in the text must be listed. The list of references should be arranged alphabetically and then numbered. References are numbered in the text [numbers in square brackets] and in the reference list and numbers are repeated throughout the text as needed. The bibliographic description is given in the language of publication (citations in Georgian script are followed by Cyrillic and Latin).

9. To obtain the rights of publication articles must be accompanied by a visa from the project instructor or the establishment, where the work has been performed, and a reference letter, both written or typed on a special signed form, certified by a stamp or a seal.

10. Articles must be signed by all of the authors at the end, and they must be provided with a list of full names, office and home phone numbers and addresses or other non-office locations where the authors could be reached. The number of the authors (co-authors) must not exceed the limit of 5 people.

11. Editorial Staff reserves the rights to cut down in size and correct the articles. Proof-sheets are not sent out to the authors. The entire editorial and collation work is performed according to the author's original text.

12. Sending in the works that have already been assigned to the press by other Editorial Staffs or have been printed by other publishers is not permissible.

**Articles that Fail to Meet the Aforementioned Requirements are not Assigned to be Reviewed.**

## ავტორთა საყურადღებოდ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დავიცვათ შემდეგი წესები:

1. სტატია უნდა წარმოადგინოთ 2 ცალად, რუსულ ან ინგლისურ ენებზე,დაბეჭდილი სტანდარტული ფურცლის 1 გვერდზე, 3 სმ სიგანის მარცხენა ველისა და სტრიქონებს შორის 1,5 ინტერვალის დაცვით. გამოყენებული კომპიუტერული შრიფტი რუსულ და ინგლისურენოვან ტექსტებში - **Times New Roman (Кириллица)**, ხოლო ქართულენოვან ტექსტში საჭიროა გამოვიყენოთ **AcadNusx.** შრიფტის ზომა – 12. სტატიას თან უნდა ახლდეს CD სტატიით.

2. სტატიის მოცულობა არ უნდა შეადგენდეს 10 გვერდზე ნაკლებს და 20 გვერდზე მეტს ლიტერატურის სიის და რეზიუმეების (ინგლისურ, რუსულ და ქართულ ენებზე) ჩათვლით.

3. სტატიაში საჭიროა გაშუქდეს: საკითხის აქტუალობა; კვლევის მიზანი; საკვლევი მასალა და გამოყენებული მეთოდები; მიღებული შედეგები და მათი განსჯა. ექსპერიმენტული ხასიათის სტატიების წარმოდგენისას ავტორებმა უნდა მიუთითონ საექსპერიმენტო ცხოველების სახეობა და რაოდენობა; გაუტკივარებისა და დაძინების მეთოდები (მწვავე ცდების პირობებში).

4. სტატიას თან უნდა ახლდეს რეზიუმე ინგლისურ, რუსულ და ქართულ ენებზე არანაკლებ ნახევარი გვერდის მოცულობისა (სათაურის, ავტორების, დაწესებულების მითითებით და უნდა შეიცავდეს შემდეგ განყოფილებებს: მიზანი, მასალა და მეთოდები, შედეგები და დასკვნები; ტექსტუალური ნაწილი არ უნდა იყოს 15 სტრიქონზე ნაკლები) და საკვანძო სიტყვების ჩამონათვალი (key words).

5. ცხრილები საჭიროა წარმოადგინოთ ნაბეჭდი სახით. ყველა ციფრული, შემაჯამებელი და პროცენტული მონაცემები უნდა შეესაბამებოდეს ტექსტში მოყვანილს.

6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები - დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრამების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით **tiff** ფორმატში. მიკროფოტოსურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შეღებვის ან იმპრეგნაციის მეთოდი და აღნიშნოთ სურათის ზედა და ქვედა ნაწილები.

7. სამამულო ავტორების გვარები სტატიაში აღინიშნება ინიციალების თანდართვით, უცხოურისა – უცხოური ტრანსკრიპციით.

8. სტატიას თან უნდა ახლდეს ავტორის მიერ გამოყენებული სამამულო და უცხოური შრომების ბიბლიოგრაფიული სია (ბოლო 5-8 წლის სიღრმით). ანბანური წყობით წარმოდგენილ ბიბლიოგრაფიულ სიაში მიუთითეთ ჯერ სამამულო, შემდეგ უცხოელი ავტორები (გვარი, ინიციალები, სტატიის სათაური, ჟურნალის დასახელება, გამოცემის ადგილი, წელი, ჟურნალის №, პირველი და ბოლო გვერდები). მონოგრაფიის შემთხვევაში მიუთითეთ გამოცემის წელი, ადგილი და გვერდების საერთო რაოდენობა. ტექსტში კვადრატულ ფჩხილებში უნდა მიუთითოთ ავტორის შესაბამისი N ლიტერატურის სიის მიხედვით. მიზანშეწონილია, რომ ციტირებული წყაროების უმეტესი ნაწილი იყოს 5-6 წლის სიღრმის.

9. სტატიას თან უნდა ახლდეს: ა) დაწესებულების ან სამეცნიერო ხელმძღვანელის წარდგინება, დამოწმებული ხელმოწერითა და ბეჭდით; ბ) დარგის სპეციალისტის დამოწმებული რეცენზია, რომელშიც მითითებული იქნება საკითხის აქტუალობა, მასალის საკმაობა, მეთოდის სანდოობა, შედეგების სამეცნიერო-პრაქტიკული მნიშვნელობა.

10. სტატიის ბოლოს საჭიროა ყველა ავტორის ხელმოწერა, რომელთა რაოდენობა არ უნდა აღემატებოდეს 5-ს.

11. რედაქცია იტოვებს უფლებას შეასწოროს სტატია. ტექსტზე მუშაობა და შეჯერება ხდება საავტორო ორიგინალის მიხედვით.

12. დაუშვებელია რედაქციაში ისეთი სტატიის წარდგენა, რომელიც დასაბეჭდად წარდგენილი იყო სხვა რედაქციაში ან გამოქვეყნებული იყო სხვა გამოცემებში.

აღნიშნული წესების დარღვევის შემთხვევაში სტატიები არ განიხილება.

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*Содержание:*

# RESEARCH ON THE PATH OF COMBINING PHYSICAL EDUCATION CLASS WITH "HAPPY RUN" TO IMPROVE STUDENTS' PHYSICAL FITNESS TEST SCORES IN MEDICAL COLLEGES

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## Abstract.

In this paper, 499 students of Grade 2020 in Nursing College of Southern Anhui Medical College were taken as the research objects. By comparing and analyzing the physical test data in 2020 and 2021, it was found that "Happy Run" played a significant role in improving students' physical test scores. The following conclusions are drawn: 1. College students' understanding and attention to physical examination are generally not high, so they need to change their concepts to improve their understanding; 2. The relevant policies and regulations of college students' physical fitness test are not in place; 3. Students with different constitutions should be given hierarchical teaching and classified guidance to improve students' physical test scores in an all-round way; 4. Strengthen teacher training, promote keeping pace with the times and promote all-round development.

**Key words.** College students, physical fitness test, physical exercise.

## Introduction.

Anhui Education Department began to implement the club system teaching reform in colleges and universities in 2018. The Provincial Department of Education requires that schools should properly handle the relationship between elective and compulsory, in-class and out-of-class, basic and professional when carrying out the teaching reform of club system. Combining the credit system reform, major and minor reform and semester teaching content reform, the curriculum is innovatively designed to meet the physical exercise needs of students with different hobbies. According to the requirements of the Education Department and the actual situation of the school, colleges and universities carry out the reform of sports club system. In order to better implement the requirements of Anhui Education Department for the reform of sports club system in colleges and universities, improve students' interest in physical education class, enhance students' physical fitness and cultivate students' awareness of lifelong physical exercise, Wannan Medical College has attached great importance to it since receiving the notice. The Party Committee of the school decided to implement the club system reform in 2018. At the same time, "Happy Run" punch-in activities are carried out for freshmen, sophomores, juniors and graduate students, so as to improve students' endurance and cardiopulmonary function, cultivate students' awareness of active exercise, strengthen students' physique, improve students' physical test scores and achieve ideal physical test results. Freshmen and sophomores are required to punch in 30 times per semester, and juniors and graduate students are required to punch in 20 times per semester. Boys need to run more than 2.8 kilometers each time, girls need to run more than 2.4 kilometers each time, and the pace per kilometer is between 5 and 9 minutes, so that they can get 30 points or 20 points in physical education class, which are directly included in the total score of physical education class. Under the joint promotion of physical education class and "Happy Run", college students' physique has improved significantly, and their physical test scores have also improved significantly [1-6].

## Physical measurement data analysis.

**Overall Analysis Table:**

According to the analysis of the test results of nursing students of Grade 2020 in 2020 and 2021, the number of people who failed the physical fitness test in the first semester of freshmen in 2020 was 25, accounting for 5% of the total number; The number of people who passed the exam was 369, accounting for 73.9%; The number of good people was 101, accounting for 20.2%; The number of outstanding people is 4, accounting for 0.8%. After a year of "happy running" and physical exercise, the physical test data in 2021 is significantly higher than that in 2020. Among them, the failure rate dropped to 4%; The good rate rose to 24%; The excellent rate has increased to 2.6%. This shows that, driven by the university physical education class and "happy running", the physical condition of the students of Grade 2020 in nursing college has been significantly improved, and the physical education class and "happy running" mode have practical application and popularization value.

**Physical test analysis of male and female students:**

According to the number of male nursing students who failed in 2021 decreased from 22 in 2020 to 17, showing a significant improvement; The number of people who passed the exam remained basically unchanged; The number of good people increased from 11 to 17; The number of outstanding people remains unchanged. There is no change in the number of failing girls in 2020 in 2021 and 2020; Although the number of people who passed the exam decreased, the number of good people increased by 13, the number of excellent people increased by 9, and the ratio of good and excellent people increased significantly. On the whole, students' physical test scores in sophomore year are better than those in freshman year.

**Strength Quality Analysis Table:**

The failure rate of male students' pull-up is relatively high in physical fitness test items, which is 87.1% and 84% for freshmen and sophomores respectively; The excellent rates were only 1.8% and 3%. Pull-ups require strong upper limb strength and core strength. If a boy lacks exercise at ordinary times, especially special upper limb strength training, his pull-up ability may be weak. During the test, it was found that 75%

***Table 1.*** *Analysis of Physical Examination Scores of Students in Nursing College of Grade 2020 in 2020 and 2021 (n=499).*

| Year | Fail | Proportion (%) | Pass | Proportion (%) | Good | Proportion (%) | Excellent | Proportion (%) |
|---|---|---|---|---|---|---|---|---|
| 2020 | 25 | 5 | 369 | 73.9 | 101 | 20.2 | 4 | 0.8 |
| 2021 | 20 | 4 | 346 | 69.3 | 120 | 24 | 13 | 2.6 |

***Table 2.*** *Analysis of 50 meters for boys (n=163).*

| Year | Fail | Proportion (%) | Pass | Proportion (%) | Good | Proportion (%) | Excellent | Proportion (%) |
|---|---|---|---|---|---|---|---|---|
| 2020 (freshman year) | 3 | 1.8 | 121 | 74.2 | 20 | 12.3 | 19 | 11.7 |
| 2021 (sophomore year) | 4 | 2.5 | 120 | 73.6 | 18 | 11 | 21 | 12.9 |

***Table 3.*** *Analysis of 50 meters for girls (n=336).*

| Year | Fail | Proportion (%) | Pass | Proportion (%) | Good | Proportion (%) | Excellent | Proportion (%) |
|---|---|---|---|---|---|---|---|---|
| 2020 (freshman year) | 12 | 3.6 | 297 | 88.4 | 23 | 6.8 | 4 | 1.2 |
| 2021 (sophomore year) | 11 | 3.3 | 296 | 88.1 | 27 | 8 | 2 | 0.6 |

***Table 4.*** *Analysis of male body flexion (n=163).*

| Year | Fail | Proportion (%) | Pass | Proportion (%) | Good | Proportion (%) | Excellent | Proportion (%) |
|---|---|---|---|---|---|---|---|---|
| 2020 (freshman year) | 1 | 0.6 | 95 | 58.3 | 31 | 19 | 36 | 22.1 |
| 2021 (sophomore year) | 6 | 3.7 | 92 | 56.4 | 29 | 17.8 | 36 | 22.1 |

***Table 5.*** *Analysis of female body flexion (n=336).*

| Year | Fail | Proportion (%) | Pass | Proportion (%) | Good | Proportion (%) | Excellent | Proportion (%) |
|---|---|---|---|---|---|---|---|---|
| 2020 (freshman year) | 5 | 1.5 | 149 | 44.3 | 84 | 25 | 98 | 29.2 |
| 2021 (sophomore year) | 5 | 1.5 | 139 | 41.4 | 69 | 20.5 | 123 | 36.6 |

***Table 6.*** *Analysis of vital capacity of male students (n=163).*

| Year | Fail | Proportion (%) | Pass | Proportion (%) | Good | Proportion (%) | Excellent | Proportion (%) |
|---|---|---|---|---|---|---|---|---|
| 2020 (freshman year) | 6 | 3.7 | 75 | 46 | 38 | 23.3 | 44 | 27 |
| 2021 (sophomore year) | 5 | 3.1 | 68 | 41.7 | 36 | 22.1 | 54 | 33.1 |

***Table 7.*** *Analysis of vital capacity of female students (n=336).*

| Year | Fail | Proportion (%) | Pass | Proportion (%) | Good | Proportion (%) | Excellent | Proportion (%) |
|---|---|---|---|---|---|---|---|---|
| 2020 (freshman year) | 3 | 0.89 | 179 | 53.3 | 64 | 19 | 90 | 26.8 |
| 2021 (sophomore year) | 2 | 0.6 | 169 | 50.3 | 70 | 20.8 | 95 | 28.3 |

***Table 8.*** *Analysis of Boys' Standing Long Jump (n=163).*

| Year | Fail | Proportion (%) | Pass | Proportion (%) | Good | Proportion (%) | Excellent | Proportion (%) |
|---|---|---|---|---|---|---|---|---|
| 2020 (freshman year) | 18 | 11 | 120 | 73.6 | 15 | 9.2 | 10 | 6.1 |
| 2021 (sophomore year) | 19 | 11.7 | 113 | 69.3 | 23 | 14.1 | 8 | 4.9 |

***Table 9.*** *Analysis of female standing long jump (n=336).*

| Year | Fail | Proportion (%) | Pass | Proportion (%) | Good | Proportion (%) | Excellent | Proportion (%) |
|---|---|---|---|---|---|---|---|---|
| 2020 (freshman year) | 19 | 5.7 | 212 | 63.1 | 69 | 20.5 | 36 | 10.7 |
| 2021 (sophomore year) | 19 | 5.7 | 209 | 62.2 | 70 | 20.8 | 38 | 11.3 |

of boys in some administrative classes had zero pull-ups, even though these boys were not fat. This shows that boys' upper limb strength needs to be strengthened, and they need to carry out special strength training for pull-ups. Compared with pull-ups, girls' sit-ups are less difficult. Although the excellence rate is not high, the number of people who pass and are good accounts for a large part, and the proportion of sophomores is higher than that of sophomores.

**Endurance analysis:**

In terms of endurance, the number of boys who failed in the sophomore year of 1000 meters decreased by 10 compared with the freshman year, and increased by 6.1%; The number of qualified and good people has increased slightly, which are 4.9% and 1.2% respectively; The number of outstanding people has not changed, and it is still one. The girl 800 meters in the sophomore year and the freshman year comparison has obviously changed, the number of people who failed decreased by 4, increased by 1.2%; The number of outstanding people increased from 13 to 26, an increase of 3.8%.

**Speed Quality Analysis.**

In terms of speed quality, the change of 50 meters for boys in sophomore and freshman years is not great. The failure

rate decreased by 0.7%, the pass rate increased by 0.6%, the good rate decreased by 1.3%, and the excellent rate increased by 1.2%. The change of 50 meters for girls in sophomore and freshman years is not obvious. The failure rate decreased by 0.3%, the pass rate decreased by 0.3%, the good rate increased by 1.2%, and the excellent rate decreased by 0.6%.

**Flexibility Analysis.**

The passing rate of boys with anterior flexion decreased by 3.1% in sophomore year compared with freshman year. The passing rate of sophomores is 1.9% lower than that of freshmen, and the good rate is 1.2% lower, while the excellent rate remains unchanged. In the aspect of body flexion, the failure rate of sophomore students has not changed, the pass rate has decreased by 2.9%, the good rate has decreased by 4.5%, but the excellent rate has increased by 7.4%. Generally speaking, women are more flexible than men. This is because women's ligaments and muscle tissues have higher elasticity, so it is easier to complete the posture of body flexion. Men are usually relatively strong in upper body strength, and muscle groups such as shoulders, chest and arms develop better. Women, on the other hand, pay more attention to the exercise of the lower body, and the muscles such as hips, thighs and calves develop better, which also helps them achieve better forward flexion.

**Vital capacity analysis:**

The vital capacity of boys above 4800 ml and girls above 3300 ml reaches the excellent standard. Compared with freshmen, the failure rate of sophomore students increased by 0.6%, the pass rate decreased by 4.3%, the good rate decreased by 1.2%, and the excellent rate increased by 6.1%. Compared with freshmen, the failure rate of sophomore girls increased by 0.29%, the pass rate decreased by 3%, the good rate increased by 1.8%, and the excellent rate increased by 1.5%. Both boys and girls have excellent and good vital capacity, which shows that "happy running" plays a certain role in improving vital capacity. Running is an aerobic exercise, which can enhance heart and lung function, improve the efficiency of respiratory system, and thus improve vital capacity. Running can enhance the function and elasticity of the lungs. During running, it is necessary to take deep breaths to meet the body's demand for oxygen, which can expand the capacity of the lungs and increase the physiological activity of the alveoli. Long-term running will dilate alveoli and improve the air permeability of lungs, thus improving vital capacity.

**Explosive Force Quality Analysis:**

Compared with freshmen, the failure rate of standing long jump boys in sophomore year decreased by 0.7%, the pass rate decreased by 4.3%, the good rate increased by 4.9%, and the excellent rate decreased by 1.2%. In standing long jump, the failure rate of sophomores and freshmen has not changed, the passing rate has decreased by 0.9%, the good rate has increased by 0.3%, and the excellent rate has increased by 0.6%, with little overall change. In the later training, we should focus on strengthening the auxiliary movements of students' standing jump, such as squat jump and one-leg squat jump, so as to improve the strength and explosive force of leg muscles. At the same time, we should also practice the correct posture when taking off, the swing of arms, the technical movements when flying and landing, so as to improve the performance of standing long jump.

## Path to improve physical test scores.

**Changing Ideas:**

The purpose of college students' physical fitness test is to improve their physical quality and health level. Physical examination is an important link in school physical education. College students should treat physical examination correctly, not only as a form of completing tasks, but also know their physical problems with a positive attitude, and on this basis, strengthen later exercise, so as to keep a good physical condition to participate in college life and study. College students should realize that physical examination is a test of physical exercise, not a deal with it. During the test, we should adjust our own state, devote ourselves to the test, give full play to our personal level, test our own shortcomings, and carry out targeted exercise in the later period. Physical examination is not only an evaluation of personal physical fitness and health status, but also a consideration of college physical exercise level. The quality of physical examination results is not only related to an individual's comprehensive quality and sports ability, but also affects the selection of events, subject competitions and the issuance of graduation certificates. Therefore, college students should take physical examination as an opportunity and way to improve their comprehensive quality, keep healthy and show their personal strength, and further cultivate healthy exercise habits and lifestyles.

**Schools attach importance to it, and physical examination is included in the year-end assessment:**

Since the implementation of the teaching reform of sports club system in Southern Anhui Medical College, the party and government leaders and secondary colleges have attached great importance to it. The school has formulated relevant documents, which regard the excellent rate, good rate and passing rate of students' physical examination in the year-end assessment of secondary colleges as an important assessment content. Before students' physical examination, the secondary colleges mobilized, requiring students to pay attention to physical examination, take physical education class seriously, and arrange exercise in their spare time reasonably, so as to realize the "five educations" simultaneously and cultivate medical students in the new era.

**The results of "Le Run" are related to the results of physical education class, and everyone is encouraged to actively participate:**

After discussion, it is decided that among the students in school, the "Happy Run" of freshmen and sophomores should be completed 30 times per semester, while that of juniors and postgraduates should be completed 20 times per semester. The score of "Happy Run" is linked with the score of physical education class, and each "Happy Run" is counted as 1 point, which is directly added to the total score of physical education class this semester. This measure has raised students' attention to "happy running". At the same time, students' enthusiasm

for participating in the "Happy Run" punch card has been significantly improved. For students who can't participate in normal sports, they can apply for health care classes or be exempted from examinations to protect their legitimate rights and interests.

**Increase guidance to students for shortcomings:**

In order to understand the weak items of students in physical fitness test, the freshmen are tested thoroughly and the data of senior students in the previous year are analyzed. Carry out targeted guidance and training in the later teaching process. Strengthen the contact with the college where the students are located and supervise and track them through counselors and class teachers. Increase the practice of weak items in extracurricular exercise, so as to enhance physical fitness and improve physical test scores.

**Improve teachers' guidance level:**

In order to better serve students and improve physical examination scores, teachers should regularly participate in training or invite experts and scholars to give lectures and guidance, so as to enhance teachers' physical education knowledge and guidance ability. Training contents can include evaluation standards, training methods and teaching skills of physical examination items. Encourage physical education teachers in schools to exchange and share experiences and establish learning teams. Teaching and research activities can be organized regularly, so that teachers can learn from each other and improve together. Provide teachers with necessary subject materials, supplementary teaching materials and teaching equipment to ensure that they have sufficient resources for teaching and guidance. In addition, we should strengthen the guidance to teachers' classroom teaching and help them arrange teaching contents and methods reasonably, so as to improve students' physical examination skills and achievements.

## Conclusions and recommendations.

**College students should change their concepts and improve their understanding:**

College students' attention to physical examination is related to their personal interests and health cognition. Education and publicity can enhance college students' attention to physical examination and make them realize that keeping good health is one of the important factors to achieve all-round personal development. Physical examination is not only a school task, but also a true reflection of students' physical condition. Students should actively learn sports skills in class and improve their physical fitness through "happy running" after class, so as to be strong and skilled medical workers.

**The relevant policies and regulations of the state on the physical fitness test of college students are implemented:**

According to the national policies and regulations, the school establishes students' physical fitness test files, records students' physical fitness test results, and regularly submits them to higher authorities. The school actively cooperates with the implementation of the requirements and objectives of the national physical fitness test, as well as relevant policies and regulations. In the process of testing, teachers must operate strictly according to the requirements, and students should take it seriously and go all out when testing.

**Classify and treat according to the physical test results, and guide the weak projects:**

According to the results of students' physical fitness test, establish students' physical health records, and compare the test results of each academic year. According to the test results of different items, the students who failed the test were given classified guidance. According to the teaching requirements, freshmen can do more exercise activities related to physical examination in class and get targeted guidance. With the joint efforts of students and teachers, improve test scores.

**Intensify teacher training:**

Teachers in charge of physical examination can participate in relevant national physical examination training in groups. After returning from study, they will prepare lessons collectively, and preach the latest contents and requirements to teachers, so as to understand the latest test requirements and regulations, thus improving test efficiency and test scores.

## Conclusion.

Physical fitness tests are an important tool to evaluate college students' physical quality and health status. By evaluating personal physical fitness, cardiopulmonary function, musculoskeletal condition and other aspects, physical fitness test can help college students understand their physical condition. "Physical education class + happy running" is a good exercise mode, which not only learns skills in class, but also exercises physically after class. Under the guidance of teachers, college students can improve their physical functions and strengthen their physique through their own efforts, so as to better serve the society.


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