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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.

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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 ВИНТИ 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 ВИНТИ 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. Корректурa 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 computer-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 საქურაღებოლ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დაიცვათ 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 შედეგის 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 ფხიხლებში 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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UNDERSTANDING THE VITAL DETERMINANTS SHAPING LEARNERS' PHYSICAL ACTIVITY AND PSYCHOEMOTIONAL WELLBEING IN THE COVID-19 PERIOD

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Abstract.

Aim: The Corona Virus (CoV-19) epidemic significantly affected the educational environment, requiring a quick transition to distance and blended learning methods. This extraordinary disruption had an incredible impact on pupils' levels of physical activity (PA), psycho-emotional health (PEH) and engagement with academic material. The research aims to examine the vital determinants that influenced various areas of learners' lives during CoV-19.

Materials and Methods: The purpose of this 600-person study was to collect data on the subjects' overall health and PA levels for the CoV-19 pandemic. The SPSS application was used to process the questionnaire's collected data. The information given reveals the respondents' degree of PA throughout the quarantine.

Result: According to the breakdown, 15% indicated low levels of PA, 39% reported medium levels and 46% reported high levels. The data show that, despite the respondents' different levels of PA, little PA predominated for most of them.

Conclusion: The limitations of distance learning throughout quarantine and the prevalent recommendation of leaving residence for necessary reasons were blamed for this tendency. There were fewer prospects for higher-intensity PA due to these circumstances.

Key words. Skill competency, Cyber security, Robotics and Autonomous Systems (RAS), skill competency, PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis), Food Supply Chains.

Introduction.

Students have been affected by the global epidemic and the quarantine restrictions in most countries, like everyone else. The new laws and prohibitions that changed the nature of people's education and careers made everyone withdraw from social life to dedicate more time at home. These adverse circumstances have resulted in a decrease in the health of students, with some systems as well as functions strained and others suffering from a lack of PA [1]. Anxiety, depression and stress are typical responses to catastrophic events like the global Corona Virus (CoV-19) spread. By evaluating their degree of concern, awareness of the infection, effectiveness of their preventative measures and accuracy of the information they were given, the researchers hope to gain more insight into the factors that lead to emotional turmoil in an accurate population representation [2]. After starting in China in late December 2019, the CoV-19 disease expanded and contaminated, resulting in a global

pandemic. Due to the lack of a vaccine, the World Health Organization (WHO) declared it a pandemic. To battle CoV-19 and save lives, the WHO recommended that governments separate their populations, discourage mass gatherings and encourage healthy hygiene practices like social distancing and hand washing [3].

Because of the sensitive nature of their patients and the high stakes of their jobs, healthcare providers (HCPs) are under intense stress. Despite their crucial role in addressing the global CoV-19 challenge, HCPs face increasing patient loads, inadequate equipment, long shift work and a higher risk of stress-related issues or disorders during the pandemic due to a variety of factors, including a heightened fear of infecting themselves or family members [4]. Students pursuing degrees in the medical sciences are an essential human resource for advancing healthcare in the future. The well-being of these newcomers to the medical science field was ignored. One-third of first-year medical students did not engage in any form of PA, putting them at increased risk for cardio-metabolic disorders. To maintain a healthy workforce in the medical sciences, young professionals must be encouraged to adopt a healthy lifestyle [5]. The following has been linked to widespread changes in people's working and educational routines besides their general way of life, affecting millions worldwide. Fear, anxiety, and uncertainty have been on the rise, which has people worried about the impact on healthcare systems and the nature of the virus [6]. University students have a pressing issue with the requirement of adhering to the regime of self-isolation. Their unconventional living situation resulted from their decision to stay home and complete their coursework via technological communication. They began engaging in far less physical exercise, for one thing. Many students, as a result, faced severe confinement and emotional distress as a result of this. Some academics say most distance learners have altered their eating habits [7]. It made headlines worldwide and the WHO declared a pandemic. The public and the government were unprepared, even though some scientists and authors had predicted a possible pandemic [8]. Physical well-being and the efficient operation of the immune system depend on sleep. It supports mental health along with emotional well-being and aids in overcoming stress, anxiety, and depression. Before the CoV-19, millions of people experienced insomnia; several new difficulties were experienced by those who had never experienced sleep problems. Overindulging in screen time, particularly in the late hours of the night, can negatively impact sleep. This is due to blue light from screens, which interferes with the body's normal

synthesis of melatonin, a hormone that promotes sleep [9]. One could consider the CoV-19 pandemic to be a global stressor that poses a threat to public health and life. Research indicates that there are socioeconomic and health consequences as well as a growing number of severe psychological effects on individuals [10]. The population's psychological, emotional, economic and social well-being is negatively impacted, like their physical health. CoV-19 can impact people of all ages, but adolescents could be vulnerable due to their unique developmental vulnerabilities. Teenagers' capacity to interact with others has suffered due to CoV-19, leading to isolation, tension, dread, anxiety, and depression. It was later determined that the CoV-19 outbreak in Wuhan constituted a global pandemic. The CoV-19 pandemic affects every facet of human existence [11].

To identify factors that influence students' emotional well-being. Global measures of social isolation have been enacted in response to the newly discovered SARS-CoV-2 virus, known as the CoV-19. Prolonged isolation had severe emotional and psychological consequences. College students were vulnerable to emotional distress during the CoV-19 [12]. Restrictions on quarantine had an impact on the everyday routines and mental well-being of elderly individuals who were at a heightened risk of disease. Lockdown measures intended to stop the spread of CoV-19 infections can lead to the adoption of unhealthy behaviors that, can harm mental health, and raise the risk of dementia. Seclusion and quarantine might harm the mental health of elderly individuals suffering from subjective cognitive decline (SCD) or moderate cognitive impairment (MCI) [13]. The structured ways that social media use affects teenagers' mental health daily and during the CoV-19. The study hypothesized that spending too much time on social media will lead to isolation, sadness, and insomnia. Interviews, questionnaires, and statistical analyses contributed to the probe's findings. Adolescents in today's society can't imagine life without their daily dose of social media [14]. To understand how the CoV-19 quarantines limitations affected the mental and physical health of overweight, including obese women. Anthropometric measures were taken, and bio-impedance analysis was performed to evaluate body composition. Physiological tests were run on the heart and lungs, yet psychological tests probed the individual's mental state. Using statistical methods, we can quantify our findings [15]. Many preventative public health measures, such as lockdowns or curfews, have become necessary because of the CoV-19 epidemic. On the other hand, humans must develop ways to avoid the adverse effects of the CoV-19-caused lockout because they are accustomed to working and moving vertically. Therefore, this study aimed to investigate how people in Ghana dealt with physical inactivity, poor eating habits, boredom and weight gain or loss during the lockdown [16]. In the cognitive and emotional domains, CoV-19 has been linked to various persistent symptoms. A person's mental and emotional health might deteriorate even in the early stages of the disease. Our research group set out to see how often and severely children exposed to the mild version of CoV-19 recovered from the virus also experienced psycho-emotional issues and cognitive deficiencies [17]. It looked at the manner of which people's

food, sleep patterns, mental health and lifestyle were impacted by home confinement during the CoV-19 epidemic. The mental health of Arab participants during CoV-19 incarceration was correlated with PA, food and sleeping patterns [18]. The CoV-19 pandemic has been going on for more than two years and has altered life worldwide and affected sports. As a result, there have been modifications to mental health and a decline in PA. The objective was to evaluate student-athletes from two nearby nations using different anti-pandemic techniques regarding self-reported PA, life satisfaction, choice of coping strategies, perceived stress, and their linkages [19]. The study discussed that people with mental health issues can experience acute symptoms in addition to new ones due to the pandemic's inherent causes of anxiety, stress, and discomfort. Due to the urgent situation, hours previously scheduled in an offline setting had to be moved online to meet the educational demands of students better, creating stressful circumstances and new difficulties. Systematic screening of the school population is a proven way to identify pupils suffering from anxiety or depression [20]. The objective was to look into student athletes' self-reported rates of stress, anxiety, life satisfaction, physical activity and perception during the CoV-19 pandemic in two nearby countries, as well as their choices regarding coping mechanisms in light of different national anti-pandemic measures. Additional objectives comprised developing and assessing behavioral guidelines and markers that help to minimize the negative impact of the circumstance on mental health. Figure 1 illustrates the possible psychological effects of CoV-19, simple neuroscience-based recommendations, effects on cognitive processes and increasing brain resilience to aid in learning processes.

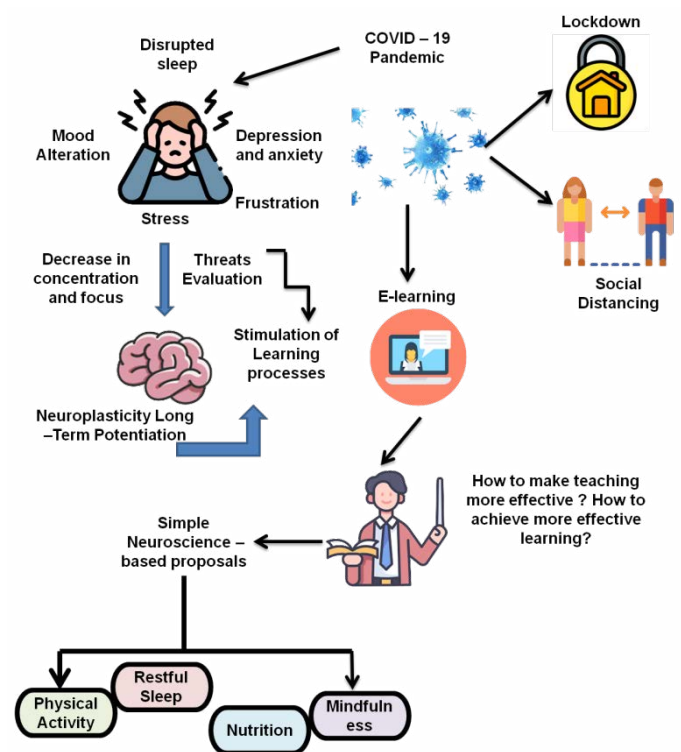


Figure 1. Potential COVID-19-related psychological changes.

Materials and Methods.

Data Collection.

The 600 students participated in the study ranged in age from 20 to 42, with an average age of 26 ± 18.7 years (Median = 22). Women comprised 89% of the responders, with men making up 14% (or one in ten). Study participants were allocated based on their program of study: 11% were from occupational therapy, 24% were from hygienic, 44% were from general practice and nursing, 11% were from radiography and the remaining 15% were from physiotherapy, biomedical diagnostics, dietetics, and decorative dermatology.

Questionnaire development.

Four standardized questionnaires were used in the anonymous survey to acquire demographic data:

- The General Health Questionnaire (GHQ-12) evaluates people's mental health and most recent emotions.
- During the CoV-19 epidemic, what kinds of physical activities have you participated in?
- How have you dealt with the stress and mental difficulties brought on by the recent CoV-19 pandemic?
- The International PA Questionnaire (IPAQ short version) is used to gauge how much and how long people in the 19–70 age range physically exercise each week.

Statistical Analysis.

The software SPSS Statistics 23 was used to process the data. For data analysis, descriptive statistical techniques were employed. Tests were run on random samples to ascertain statistical relevance: chi-square (χ^2) and the student t-criterion were used for two pieces. When $p < .051$. The results were considered to be substantial. The analytical interaction's intensity was ascertained by calculating the Pearson regression factor.

Results.

When the CoV-19 pandemic-related quarantine was evaluated, it was discovered that 43% of the study's subjects engaged in high levels of PA (> 2000 MET- min/week) and 42% of them engaged in medium levels (500-2000 MET- min/week) of PA. 18% of the respondents fell into poor PA (less than 500 MET-min/weeks). There were no discernible changes in the distribution of FA groups according to specializations. For the respondents in the low-level PA category, walking constituted the bulk of their low-intensity PA (average of 2 days a week, 20 minutes a day and 63%, as reported by MET). Respondents participated in other intensity activities considerably less, neither medium (0.4 weeks per day) nor high (0.2 weeks per day) intensity activities were carried out full-time. MET found that, the allocation of medium-intensity behaviour was twice as high (28%) as that of high-intensity activities (11%) despite the similarity in the proportion of the two movements.

We evaluated the respondents' intensity of PA who was placed in the group of respondents with a medium level of PA. High-intensity activities accounted for a minor portion; respondents participated in these activities for 2 days per week, or 25 minutes per day (MET – 18%). Table 1 and Figure 2 illustrate that students participated twice are engaged in high-intensity workouts; they conducted medium-intensity activities.

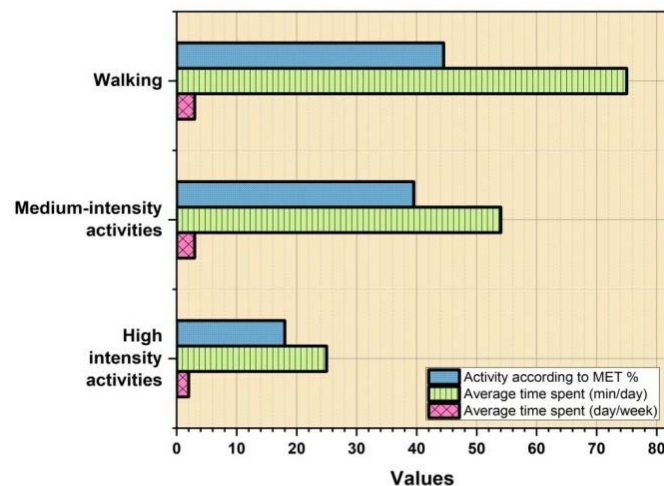


Figure 2. Participant representation according to average PA intensity indicators in the low PA level group.

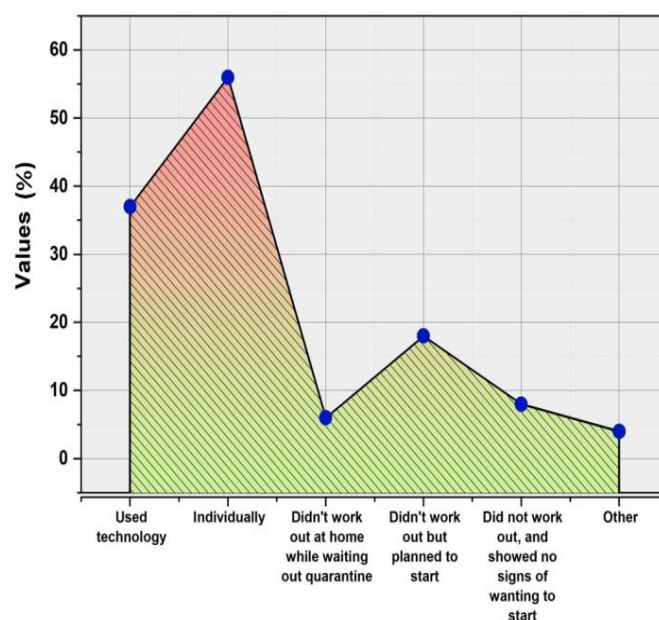


Figure 3. The type of PA that the responders engaged in during the Quarantine period.

Table 1. Participant representation.

Activities	Values		
	Average time spent (week per day)	Average time spent (min/day)	Activity according to MET %
High-intensity activities	2	25	18
Medium-intensity activities	3	54	39.5
Walking	3	75	44.5

High-PA responders spent an average of 91 minutes per day (MET - 28%) participating in vigorous activity on three days per week. Medium-intensity activity participants experienced twice (5 days per week) than those who participated in high-intensity activities.

According to the study, 56% of the respondents worked out at home during the quarantine (according to their regimen). A third of the participants (37%) reported using technology, such as YouTube videos and online workouts. While 18% of respondents stated they did not exercise during the quarantine but planned to do so, 8% reported not exercising, as shown in Table 2 and Figure 3.

Several activities were found when the respondents' methods for reducing anxiety and stress were evaluated. Most participants (70.9%) indicated that listening to music was their preferred way of relieving stress. In comparison, 68% suggested watching TV series and films, yet 65% meant conversing with close friends and family as shown in Table 3 and Figure 4.

Table 2. The responders engaged in during the Quarantine period.

Responders	Values
Used technology	37%
Individually	56%
Didn't work out at home while waiting out quarantine	6%
It didn't work out, but I planned to start	18%
It did not work out and they showed no signs of wanting to start	8%
Other	4%

Table 3. The respondents identified to lessen stress and anxiety.

Responders	Values
Watching movies and series	68%
Meditation	14%
Listening to music	70.9%
Reading books	32%
Conversations with close people	65%
Physical activity	64%
Other	7.2%

Table 4. Relationship between the age, level of PA, psychological and emotional state and duration of sitting for respondents.

Variations	Psycho emotional stare	Passive time spent (day / hour)	Physical activity	Age	
Psycho emotional stare	r p	1.0	.0883 .1266	-.2703** .0003	-.1988** .0005
Passive time spent (day / hour)	r p	-	1.0	-.2845** .0002	-.0859 .1376
Physical activity	r p	-	-	1.0	.1365* .0170
Age	r p	-	-	-	1.0

An analysis of the link between PA and mental-emotional state revealed an adverse association: respondents' PA level increased with age ($r = .1365$, $p < .05$), as their physical activity levels improved, their physical and psychological evaluation ratings dropped ($r = -.2703$, $p < .01$). Furthermore, the participant's PA and periods of inactivity were found to be negatively correlated: the lower their sedentary time, the higher their PA (r

$= -.2845$, $p < .01$). Table 4 presented the association between the participant's emotional state, PA level, age, psychological and amount of sitting time.

Low-intensity PA and psycho-emotional status were shown to have a significant negative connection ($p = .0004$) ($r = -.2026$). A weak but positive association ($r = .0244$) was discovered between the average PA level and psycho-emotional status, although this link was not significant. The study's findings showed that respondents' levels of PA increased together with a drop in their sense of ongoing tension ($r = -.1922$, $p < .01$). Table 5 illustrates the relationship between the age, level of PA, psychological as well as emotional state and duration of sitting for the respondents.

Table 5. Relationship between the age, level of PA, psychological and emotional state, and duration of sitting for respondents.

Variations	Stress	Depressed mood)	Physical activity	Age	
Stress	r p	1.0	.5439** .0012	-.1922** .0727	-.0492 .3919
Depressed mood	r p	-	1.0	-.2481** .0012	-.2717** .0002
Physical activity	r p	-	-	1.0	.1296* .0236
Age	r p	-	-	-	1.0

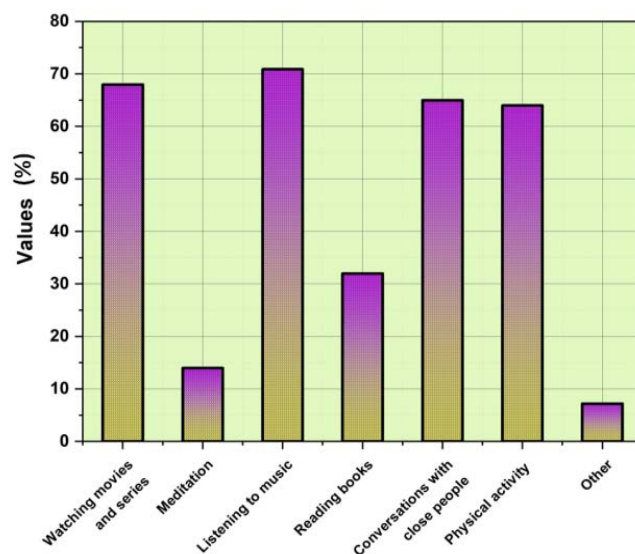


Figure 4. The strategies that respondents identified to lessen stress and anxiety.

Higher PA levels were found to be negatively correlated with depression ($r = -.2481$, $p < .01$). A negative connection ($r = -.2717$, $p < .01$) was discovered among the respondents' elderly depression and age. Stress levels and respondent age did not have a meaningful link.

Discussion.

Higher scholastic obligations and financial concerns, among other new stresses in life, have been linked to a tendency among undergraduate students to engage in less PA. Based on the sort

of event, stressors can be classified into three categories: major life events, everyday challenges, and disasters. Additional movement limitations and restrictions on communication between pupils made the students' daily schedules less dynamic throughout the quarantine. Other common challenges emerged, such as distance education or advice to venture outdoors when essential, restricted interaction with others, either physically or verbally, or not interacting with close friends or family members, among other imposed limitations. According to the survey, the majority of responders did not adhere to the WHO's recommendations for PA while under home quarantine. Most of those who responded to our survey engaged in low-intensity PA, such as walking, to comply with the quarantine requirements. Of those who responded, 18% were classed as practicing low PA and 15% did not exercise. According to data from the GHQ-12 assessment, 83% of participants had scores greater than 12 points, which is the threshold above which it could have been assumed that they had particular psychological problems while detained. Most respondents reported having poor self-worth, trouble concentrating, difficulty sleeping and feeling stressed when their subjective assessments of their general health, emotions and well-being were assessed. They reported losing confidence, depressed mood, and constant tension in coping with various issues.

It is possible to conclude that the responders' stress, the emotional strain, and the excessive workload through the isolation represent a particular type of imbalance between the students' health and unanticipated difficulties brought by unforeseen changes in their schedule. The body's reserves are drained if stressful situations occur frequently or last for an extended period and this can result in several ailments, including hypertension, heart attacks, diabetes, depression, and cancers. The results of our research showing a negative correlation between poor PA and psycho-emotional states are consistent with other studies' findings that PA improves mood and reduces stress. The high degree of PA and the extra leisure time during the quarantine can have contributed to these alterations. Our study's findings are consistent with information gathered by other researchers, which shows that exercise not only lessens the symptoms of anxiety, depression, or stress but also boosts one's sense of worth and self-esteem, all of which contribute to a positive psycho-emotional state. A review of the study's results in the quarantine period and a comparison with information from other researchers gathered during non-quarantine indicate the relationships between age, PA and psycho-emotional state. Engaging in PA is an excellent way to lessen the symptoms of tension and stress. Numerous researches have produced data indicating a high correlation between anxieties along with its reduction, PA, a positive relationship between physical exercises, self-esteem and self-value. Their notion of controlling the situation can harm their health in some cases (such as during the quarantine). In view of the potential repercussions, we would like to call for awareness of the student's insufficient physical exercise throughout the CoV-19 outbreak. It is essential to remember that the best approach to change kids' attitudes during quarantine is to find out why they choose not to participate in sports or exercise. Only then the PA plans that are the least demanding and most appealing can be proposed or altered.

Conclusion.

The majority of each respondent's day was either spent walking or sitting. The primary reason for the decreased mobility activity is that staying indoors throughout the quarantine and pursuing remote learning is advised. Long-term bad agenda choices and inadequate PA levels among responders can be the root cause of several illnesses. Most responders used artistic, intellectual, or physical activities to cope with anxiety and stress throughout the quarantine. Therefore, regular exercise and PA can be a straightforward, affordable, and successful therapy throughout the quarantine. PA is essential in treating student anxiety, stress, and melancholy.

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