

GEORGIAN MEDICAL NEWS

ISSN 1512-0112

No 1 (310) Январь 2021

ТБИЛИСИ - NEW YORK



ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии
საქართველოს სამედიცინო სიახლენი

GEORGIAN MEDICAL NEWS

No 1 (310) 2021

Published in cooperation with and under the patronage
of the Tbilisi State Medical University

Издается в сотрудничестве и под патронажем
Тбилисского государственного медицинского университета

გამოიცემა თბილისის სახელმწიფო სამედიცინო უნივერსიტეტთან
თანამშრომლობითა და მისი პატრონაჟით

ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ
ТБИЛИСИ - НЬЮ-ЙОРК

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 and The International Academy of Sciences, Education, Industry and Arts (U.S.A.) 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 и Международной академией наук, образования, искусств и естествознания (IASEIA) США 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 ბაზებშიდან.

МЕДИЦИНСКИЕ НОВОСТИ ГРУЗИИ

Ежемесячный совместный грузино-американский научный электронно-печатный журнал
Агентства медицинской информации Ассоциации деловой прессы Грузии,
Международной академии наук, индустрии, образования и искусств США.
Издается с 1994 г., распространяется в СНГ, ЕС и США

ГЛАВНЫЙ РЕДАКТОР

Николай Пирцхалаишвили

НАУЧНЫЙ РЕДАКТОР

Елене Гиоргадзе

ЗАМЕСТИТЕЛЬ ГЛАВНОГО РЕДАКТОРА

Нино Микаберидзе

НАУЧНО-РЕДАКЦИОННЫЙ СОВЕТ

Зураб Вадачкориа - председатель Научно-редакционного совета

Михаил Бахмутский (США), Александр Геннинг (Германия), Амиран Гамкрелидзе (Грузия),
Константин Кипиани (Грузия), Георгий Камкамидзе (Грузия),
Паата Куртанидзе (Грузия), Вахтанг Масхулия (Грузия),
Тенгиз Ризнис (США), Реваз Сепиашвили (Грузия), Дэвид Элуа (США)

НАУЧНО-РЕДАКЦИОННАЯ КОЛЛЕГИЯ

Константин Кипиани - председатель Научно-редакционной коллегии

Архимандрит Адам - Вахтанг Ахаладзе, Амиран Антадзе, Нелли Антелава, Тенгиз Асатиани,
Гия Берадзе, Рима Бериашвили, Лео Бокерия, Отар Герзмава, Лиана Гогиашвили, Нодар Гогебашвили,
Николай Гонгадзе, Лия Дваладзе, Тамар Долиашвили, Манана Жвания, Тамар Зерекидзе,
Ирина Квачадзе, Нана Квирквелия, Зураб Кеванишвили, Гурам Кикнадзе, Димитрий
Кордзаиа, Теймураз Лежава, Нодар Ломидзе, Джанлуиджи Мелотти, Марина Мамаладзе,
Караман Пагава, Мамука Пирцхалаишвили, Анна Рехвиашвили, Мака Сологашвили, Рамаз Хецуриани,
Рудольф Хохенфеллнер, Кахабер Челидзе, Тинатин Чиковани, Арчил Чхотуа,
Рамаз Шенгелия, Кетеван Эбралидзе

Website:

www.geomednews.org

The International Academy of Sciences, Education, Industry & Arts. P.O.Box 390177,
Mountain View, CA, 94039-0177, USA. Tel/Fax: (650) 967-4733

Версия: печатная. **Цена:** свободная.

Условия подписки: подписка принимается на 6 и 12 месяцев.

По вопросам подписки обращаться по тел.: 293 66 78.

Контактный адрес: Грузия, 0177, Тбилиси, ул. Асатиани 7, IV этаж, комната 408
тел.: 995(32) 254 24 91, 5(55) 75 65 99

Fax: +995(32) 253 70 58, e-mail: ninomikaber@geomednews.com; nikopir@geomednews.com

По вопросам размещения рекламы обращаться по тел.: 5(99) 97 95 93

© 2001. Ассоциация деловой прессы Грузии

© 2001. The International Academy of Sciences,
Education, Industry & Arts (USA)

GEORGIAN MEDICAL NEWS

Monthly Georgia-US joint scientific journal published both in electronic and paper formats of the Agency of Medical Information of the Georgian Association of Business Press; International Academy of Sciences, Education, Industry and Arts (USA).
Published since 1994. Distributed in NIS, EU and USA.

EDITOR IN CHIEF

Nicholas Pirtskhalaishvili

SCIENTIFIC EDITOR

Elene Giorgadze

DEPUTY CHIEF EDITOR

Nino Mikaberidze

SCIENTIFIC EDITORIAL COUNCIL

Zurab Vadachkoria - Head of Editorial council

Michael Bakhmutsky (USA), Alexander Gënning (Germany),
Amiran Gamkrelidze (Georgia), David Elua (USA),
Konstantin Kipiani (Georgia), Giorgi Kamkamidze (Georgia), Paata Kurtanidze (Georgia),
Vakhtang Maskhulia (Georgia), Tengiz Riznis (USA), Revaz Sepiashvili (Georgia)

SCIENTIFIC EDITORIAL BOARD

Konstantin Kipiani - Head of Editorial board

Archimandrite Adam - Vakhtang Akhaladze, Amiran Antadze, Nelly Antelava,
Tengiz Asatiani, Gia Beradze, Rima Beriashvili, Leo Bokeria, Kakhaber Chelidze,
Tinatin Chikovani, Archil Chkhotua, Lia Dvaladze, Tamar Doliashvili, Ketevan Ebralidze,
Otar Gerzmava, Liana Gogiashvili, Nodar Gogebashvili, Nicholas Gongadze,
Rudolf Hohenfellner, Zurab Kevanishvili, Ramaz Khetsuriani, Guram Kiknadze,
Dimitri Kordzaia, Irina Kvachadze, Nana Kvirkvelia, Teymuraz Lezhava, Nodar Lomidze, Marina
Mamaladze, Gianluigi Melotti, Kharaman Pagava, Mamuka Pirtskhalaishvili,
Anna Rekhviashvili, Maka Sologhashvili, Ramaz Shengelia, Tamar Zerekidze, Manana Zhvania

CONTACT ADDRESS IN TBILISI

GMN Editorial Board
7 Asatiani Street, 4th Floor
Tbilisi, Georgia 0177

Phone: 995 (32) 254-24-91
995 (32) 253-70-58
Fax: 995 (32) 253-70-58

CONTACT ADDRESS IN NEW YORK

NINITEX INTERNATIONAL, INC.
3 PINE DRIVE SOUTH
ROSLYN, NY 11576 U.S.A.

Phone: +1 (917) 327-7732

WEBSITE

www.geomednews.org

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. Корректур авторам не высылаются, 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.

Содержание:

Taner Demirci, Hasret Cengiz, Sedat Cetin, Ceyhun Varim, Gizem Karatas Kılıçcioğlu MYELOLIPOMA COEXISTENCE WITH GLUCOCORTICOID AND ANDROGEN SECRETING ADRENOCORTICAL CARCINOMA: SLOW AND BENIGN CLINICAL COURSE.....	7
Русин В.И., Русин В.В., Горленко Ф.В., Добош В.М., Лопит М.М. ИЗОЛИРОВАННАЯ ПРОФУНДОПЛАСТИКА (ДИФФЕРЕНЦИРОВАННЫЙ ВЫБОР).....	11
Зубач О.Б., Григорьева Н.В., Поворозник В.В. 10-ЛЕТНЯЯ ЛЕТАЛЬНОСТЬ У ПАЦИЕНТОВ ПОСЛЕ ПЕРЕЛОМОВ ПРОКСИМАЛЬНОГО ОТДЕЛА БЕДРЕННОЙ КОСТИ.....	19
Zenaishvili M., Japaridze Sh., Tushishvili A., Davitashvili O., Kevanishvili Z. STUTTERING: INITIATING FACTORS, EVOLUTION, HEALING PERSPECTIVES.....	23
Hirna H., Kostyshyn I., Rozhko M., Levandovskiy R., Nakashidze G. ANALYSIS OF IMMUNE CHANGES AND THEIR ROLE IN THE DEVELOPMENT OF ORAL AND OROPHARYNGEAL CANCER	29
Tsitadze T., Puturidze S., Lomidze T., Margvelashvili V., Kalandadze M. PREVALENCE AND RISK-FACTORS OF BRUXISM IN CHILDREN AND ADOLESCENT POPULATION AND ITS IMPACT ON QUALITY OF LIFE (REVIEW).....	36
Solovyeva Z., Zaporozhskaya-Abramova E., Adamchik A., Gushchin A., Risovanniy S., Manukyan I. COMPARATIVE EVALUATION OF THE CLINICAL EFFICACY OF MODERN REMINERALIZING DRUGS IN THE TREATMENT OF ENAMEL CARIES (FOCAL DEMINERALIZATION)	39
Bakradze A., Vadachkoria Z., Kvachadze I. ELECTROPHYSIOLOGICAL CORRELATES OF MASTICATORY MUSCLES IN NASAL AND ORONASAL BREATHING MODES	45
Borysenko A., Timokhina T., Kononova O. INDICATORS OF LOCAL IMMUNITY IN THE COMORBID COURSE OF CARIES AND GASTROESOPHAGEAL REFLUX DISEASE.....	48
Dolidze K., Margvelashvili V., Nikolaishvili M., Suladze T., Pkhaladze M. STUDY OF THE HYGIENIC CHARACTERISTICS OF THE ORAL CAVITY UNDER THE COMPLEX EFFECT OF PHOTODYNAMIC THERAPY AND TSKALTUBO SPRING WATER RADON HORMESIS.....	54
Танская О.А., Островский Ю.П., Курлянская Е.К., Валентюкевич А.В., Колядко М.Г. ОСНОВНЫЕ КРИТЕРИИ ОТБОРА ПАЦИЕНТОВ ПРИ ФОРМИРОВАНИИ ЛИСТА ОЖИДАНИЯ НА ТРАНСПЛАНТАЦИЮ СЕРДЦА	60
Yelshibayeva E., Dautov T., Rakhimzhanova R., Gutberlet M., Mardenkyzy D., Kozhakhmetova Zh., Saduakasova A. COMPUTED TOMOGRAPHY IN DETECTING FEATURES OF CORONARY ATHEROSCLEROSIS IN DIFFERENT ETHNIC GROUPS OF KAZAKHSTAN POPULATION.....	68
Podzolkov V., Safronova T., Nebieridze N., Loriya I., Cherepanov A. TRANSFORMING GROWTH FACTOR AND ARTERIAL STIFFNESS IN PATIENTS WITH UNCONTROLLED ARTERIAL HYPERTENSION	77
Gvasalia T., Kvachadze I., Giorgobiani T. SENSITIVITY TO MECHANICAL PAIN BASED ON SATIETY LEVELS IN WOMEN	83
Povoroznyuk V., Nishkumay O., Lazarieva K., Lazariyev P. FEATURES OF BONE METABOLISM AND THEIR INFLUENCE ON ARTERIAL WALL STIFFNESS IN POSTMENOPAUSAL WOMEN WITH CONTROLLED UNCOMPLICATED HYPERTENSION	87
Solomonina N., Vacharadze K., Mgvdeladze G. CHARACTERISTICS OF DRUG RESISTANT TUBERCULOSIS IN GEORGIA (2015-2020).....	93

Abramidze T., Gotua M., Bochorishvili E., Melikidze N., Gamkrelidze A. CYPRESS POLLEN SENSITIZATION IN GEORGIA: CLINICAL AND MOLECULAR CHARACTERISTICS.....	101
Притыко Н.Г., Коваленко О.Е. ОСОБЕННОСТИ МОЗГОВОЙ ГЕМОДИНАМИКИ У ПАЦИЕНТОВ С СИНДРОМОМ ХРОНИЧЕСКОЙ ЦЕРЕБРАЛЬНОЙ ВЕНОЗНОЙ ДИСФУНКЦИИ И РАЗНЫМ УРОВНЕМ АРТЕРИАЛЬНОГО ДАВЛЕНИЯ.....	107
Chorna V., Makhniuk V., Pshuk N., Gumeniuk N., Shevchuk Yu., Khliestova S. BURNOUT IN MENTAL HEALTH PROFESSIONALS AND THE MEASURES TO PREVENT IT	113
Ratiani L., Gegechkory S., Machavariani K., Shotadze T., Sanikidze T., Intskirveli N. THE PECULIARITY OF COVID-19 GENOME AND THE CORONAVIRUS RNA TRANSLATION PROCESS AS A POTENTIAL TARGET FOR ETIOTROPIC MEDICATIONS WITH ADENINE AND OTHER NUCLEOTIDE ANALOGUES (REVIEW).....	119
Patarashvili L., Azmaipharashvili E., Jandieri K., Gvidiani S., Tsomaia K., Kikalishvili L., Sareli M., Chanukvadze I., Kordzaia D. LIVER EXTRACELLULAR MATRIX PECULIARITIES IN MAMMALS AND AVIANS.....	124
Tsomaia K., Azmaipharashvili E., Gvidiani S., Bebiashvili I., Gusev S., Kordzaia D. STRUCTURAL CHANGES IN RATS' LIVER DURING THE FIRST 2 WEEKS FOLLOWING 2/3 PARTIAL HEPATECTOMY	134
Gvianishvili T., Kakauridze N., Gogiashvili L., Tsagareli Z., Kurtanidze T. CORRELATION OF THYROID AUTOIMMUNITY WITH ATHEROSCLEROSIS EVALUATION IN HASHIMOTO'S THYROIDITIS.....	142
Kiknadze T., Tevdorashvili G., Muzashvili T., Gachechiladze M., Burkadze G. PHENOTYPIC CHARACTERISTICS OF RELAPSED LEIOMYOMA AND SMOOTH MUSCLE TUMORS OF UNCERTAIN MALIGNANCY POTENTIAL IN REPRODUCTIVE WOMEN.....	150
Pkhakadze G., Bokhua Z., Asatiani T., Muzashvili T., Burkadze G. STEM CELL INDEX IN THE PROGRESSION OF CERVICAL INTRAEPITHELIAL NEOPLASIA.....	157
Pidlisetsky A., Savosko S., Dolhopolov O., Makarenko O. PERIPHERAL NERVE LESIONS AFTER A MECHANICALLY INDUCED LIMB ISCHEMIA.....	165
Kolisnyk I., Voloshin O., Savchenko I., Yanchevskiy O., Rashidi B. ENZYMATIC ACTIVITY IN MICROSOMES, LIPID PEROXIDATION OF MICE HEPATOCYTES UNDER THE SODIUM FLUORIDE.....	169
Smagulova A., Katokhin A., Mambetpayeva B., Kulmaganbetova N., Kiyan V. A MULTIPLEX PCR ASSAY FOR THE DIFFERENTIAL DETECTION OF OPISTHORCHIS FELINEUS AND METORCHIS BILIS	176
Rigvava S., Karumidze N., Kusradze I., Dvalidze T., Tatrishvili N., Goderdzishvili M. BIOLOGICAL CHARACTERIZATION OF BACTERIOPHAGES AGAINST STREPTOCOCCUS AGALACTIAE	182
Deshko L., Udovenko Zh., Bulycheva N., Galagan V., Bulychev A. PROVISION OF THE RIGHT TO NON-INTERFERENCE WITH PRIVACY DURING MUSTER PROCESS WITH THE PARTICIPATION OF DOCTOR (FORENSIC EXPERT)	186
Теремецкий В.И., Николаенко Т.Н., Дидковская Г.В., Гмырин А.А., Шаповал Т.Б. КОНТРОЛЬ И НАДЗОР КАК СРЕДСТВА ПРЕДУПРЕЖДЕНИЯ И ВЫЯВЛЕНИЯ ПРАВОНАРУШЕНИЙ В СФЕРЕ ЗДРАВООХРАНЕНИЯ.....	192

BURNOUT IN MENTAL HEALTH PROFESSIONALS AND THE MEASURES TO PREVENT IT

¹Chorna V.,²Makhniuk V., ¹Pshuk N., ¹Gumeniuk N., ¹Shevchuk Yu., ¹Khlietova S.

¹National Pirogov Memorial Medical University, Vinnytsia;

²State Institution «A.N. Marziefiev Institute for Public Health, National Academy of Medical Sciences of Ukraine», Kyiv, Ukraine

The American psychiatrist first studied the phenomenon of the psychological state of psychiatric workers as “emotional burnout syndrome” (EES) or “predictors of the development of emotional burnout” (EER) in the 70s of the twentieth century G. Friedenberg. PREV occurs in health professionals as a result of their professional medical activities, namely in constant contact with mentally ill patients during the work shift, which leads to depletion of their psychological and physical resources [24].

Nowadays, this phenomenon of OER has studied in other areas of professional activity. Still, in the medical field, the professional responsibilities of health professionals are associated with a high degree of responsibility for the lives and health of others. That is why it requires urgent specialist decision-making, self-discipline, ability to maintain high efficiency in extreme conditions, emotional impact, constant psychological, and intellectual stress. Working in such stressful situations affects not only the quality of medical care but also is a risk of morbidity among health professionals [16,21,23].

According to research conducted in various countries around the world, among physicians and medical staff of health care facilities, the rate of burnout varies from 31.4% to 85.8% [17,22,25,26]. It should have noted that in Ukraine, this figure is higher and ranges from 73% to 89.3% [4,5,9].

According to the literature, PREV is more common in women than in men. It should have noted that the burnout syndrome depends on age, seniority, marital status, specialty and position, microclimate both in the team and at home [1,8,9,16,25]. The leading causes of burnout are the following factors:

1. Individual factors – features of character, temperament, i.e., psychophysiological processes of the human body.
2. Factors that affect a person from the outside – the conditions of communication between colleagues, workload, working conditions, financial status (low wages, lack of housing, etc.), and others.

Given the high incidence of PER among general health professionals, the study of PER among psychiatric staff and its impact on their health is hugely relevant today, which led to the topic of our research.

The purpose of the work is to determine the manifestations and level of PER in employees of the psychiatric hospital of Vinnytsia and the development of preventive measures to prevent it.

Material and methods. The study involved 224 respondents – the medical staff of the regional psychiatric hospital in Vinnytsia. Among the subjects were women – 84.8%, and men – 15.2%. Of the total number of subjects, doctors accounted for 38.8% (87 people), nurses – 61.2% (137 people). The average age of respondents among doctors was 44.6±12.2 years, among SMP 37.2±11.4 years. Work experience in professional activities was: among doctors – 19.7±12.3 years and SMP – 15.5±11.1 years. The study used a psychodiagnostic method of emotional burnout Boyko V.V. and adapted the method of Vodopyanova N.E. [15].

Using the method of Boyko V.V., an assessment of three phases of the development of PREV has carried out: the phase of stress, resistance, and exhaustion. And also according to the results of the questionnaire “Professional burnout” (P.B.), adapted by the method of Vodopyanova N.E. identified: “emotional exhaustion”, which is characterized by loss of energy, the appearance of signs of psychophysiological fatigue, signs of

anxiety and depression, anger, aggression, a sense of exhaustion; “Depersonalization”, which is characterized by increased psychological distancing from work, decreased empathy and cynical attitude towards others, patients, pessimistic thoughts about work; “Reduction of professional achievements”, which is characterized by negative self-esteem, indifference to the performance of their professional duties and reduced professional efficiency, reduced professional motivation and self-esteem.

Statistical processing of the survey results was performed in the licensed standardized package “Statistica 6.1 for Windows” with the calculation of the arithmetic mean, standard arithmetic mean. The significance of the difference has assessed using Student’s t-test (t). The content analysis of domestic and foreign scientific sources, biblio-semantic, analytical, and statistical research methods have used in work.

Results and discussion. The WHO presented the new 11th edition of the International Classification of Diseases (ICD-11) at the World Health Assembly in Geneva (2019). In this publication, the section “Factors affecting health status or contact with health care services” has been supplemented by the results of research on the treatment of healthcare professionals and other patients about the occurrence of COPD. It has recognized that this is a syndrome that occurs as a result of “chronic stress in the workplace, which the worker did not cope in time”, and therefore referred to the manifestations before the disease with the following headings: “Adaptation disorders” – F43; “Burnout” – Z73.0; “Neurasthenia” – F48 [2].

Given the high rate of PER among general health professionals, we conducted research to identify CER among medical staff at the Regional Psychiatric Hospital in Vinnytsia, which was attended by 224 nurses. According to the results of our research, it has found that the degree of formation of symptoms of emotional burnout in both physicians and SMP depended on the phase of the syndrome (table 1). The average value of emotional exhaustion among physicians was – 17.5 points and among SMP – 20.2 points. PREV is more likely to occur due to insufficient positive feedback due to poor treatment outcomes, and therefore feelings of failure, guilt, and helplessness.

Analyzing the data in table 1, it can have stated that the CME stress phase has formed in every fifth medical worker; among men, SMP registered the most significant number – 22.6%.

In the second phase of CMEA “Resistance”, the degree of formation is highest in men working as nurses and was 43.8%, in male doctors – 35.5%, which indicates the readiness of these contingents in the next phase of “Exhaustion”. This research has evidenced by the degree of formation of the last period of “Exhaustion”: the average male medical staff is high and is 39.1%, male doctors – 27.4%. In women-doctors, in the second phase of CMEA “Resistance”, the degree of resistance formation sharply increases (52.0%) in comparison with male doctors (32.3%) with the transition to the category of resistance formation at the level of 36.0%, which is levels of the indicator in male doctors (35.5%).

Women working as midwives are the most psychologically resilient, and the degree of formation of the “Resistance” phase is 0%, which is confirmed by a high degree (77.8%) of resistance (immaturity) to exhaustion.

Analyzing the indicators of the formation of the phase of “Exhaustion”, the most psychologically vulnerable group are men who work as midwives. This figure was 18.8%, while in all other categories it averaged 11.4% (male doctors – 11.3%, female doctors – 12.0%, female nurses – 11.1 %).

According to the results of processing and interpretation of the results according to the “key” of the CMEA questionnaire according to the method of Boyko V.V, it was found that the phase of the stress of the psycho-emotional state of health workers was associated with the actual experiences: psycho-traumatic circumstances in doctors – 14.2 points, in SMP – 14.1 points; anxiety and depression in doctors – 10.6 points, in SMP – 9.9 points; dissatisfaction with themselves in doctors – 9.5 points, in SMP – 9.2 points, which did not reveal a significant difference between these medical staff. However, the feeling of being driven into a cell in the SMP was registered at the level of 7.5 points, which was 1.3 times (5.5 points) higher than in physicians at $p < 0.02$.

These results confirm the presence of emotional burnout in the medical staff of a psychiatric institution, which requires immediate implementation of psycho correction measures, creating conditions for psychological relief and systematic preventive examinations.

During the study, a survey of medical staff has conducted according to another method - the questionnaire «Professional Burnout» (P.B.) adapted by Vodopyanova N. and Starchenkova E. The questionnaire contained 22 statements about the feelings and experiences associated with the performance of work. It consists of three subscales: “Emotional Exhaustion”,

“Depersonalization”, and “Professional Achievement”. Subscale “Emotional exhaustion” is characterized by loss of energy, the appearance of signs of psychophysiological fatigue, manifestations of depression, anger, aggression, a feeling of exhaustion [15].

According to the results of the study of P.B. in the medical staff on the subscale, “Emotional Exhaustion” was established as follows. High levels of burnout in terms of emotional exhaustion were observed in women-doctors and women SMP – 19.4% and 19.5%, respectively. These indicators are 1.6 times higher than the same figure for male doctors – 12.0%. A high level of occupational burnout has registered in men with SMP, which is – 33.3%, which exceeds similar indicators of all other studied contingents: 2.7 times compared to male doctors (12.0%), 1.7 times incomparable with women-doctors and SMP women.

Among all medical workers, according to the scale score, “Very high rate” P.B. was observed in women SMP – 14.8%, in women-doctors, this figure was 4.6 times lower (3.2%). Men with a “very high rate”, P.B. was not detected (Table 2).

These results have explained by the fact that women are more responsible for work, professional responsibilities, and they are more emotionally exhausted. The phase of emotional exhaustion in the severity of the leading symptoms was associated with the presence of psychosomatic and psychophysiological disorders in physicians – 8.4 points ($t=2.04$; $p < 0.05$); and more pronounced in the SMP – 10.4 points. Emotional avoidance, as a component of emotional exhaustion, was observed in physicians and was rated on a scale of 10.9 points, in SMP – at 12.2 points.

Table 1. Formation of emotional burnout syndrome (by phases and degree of structure) in medical staff of a psychiatric health care institution, (in%)

SEV phases	Voltage phase “Alarm voltage”			Resistance Phase			Depletion phase		
The degree of formation of CMEA									
The medical staff of the CHP	Unformed (9 points or less)	Formation (10-15 point)	Formation (16 points or more)	Unformed (9 points or less)	Formation (10-15 point)	Formation (16 points or more)	Unformed (9 points or less)	Formation (10-15 point)	Formation (16 points or more)
Doctors, n=87									
Men (n=25)	48,4	32,3	19,4	32,3	32,3	35,5	61,3	27,4	11,3
Women (n=62)	52,0	28,0	20,0	12,0	52,0	36,0	50,0	48,0	12,0
Paramedics, n=137									
Men (n=9)	42,2	35,2	22,6	19,5	36,7	43,8	42,2	39,1	18,8
Women (n=128)	77,8	0	22,2	55,6	44,4	0	77,8	11,1	11,1

Table 2. Occupational burnout of medical workers on a subscale “Emotional exhaustion” depending on the profession and gender of employees, in%

The medical staff of the CHP, n		Emotional Exhaustion Subscale			
		Low level (5-16 points)	Intermediate level (17-25 points)	High level (26-34 points)	Very high level (more than 34 points)
Doctors, n=87	Men (n=25)	40%	48%	12%	0
	Women (n=62)	54,8%	22,6%	19,4%	3,2%
Paramedics n=137	Men (n=9)	44,4%	22,2%	33,3%	0
	Women (n=128)	30,5%	35,2%	19,5%	14,8%

Table 3. Occupational burnout of medical workers on a subscale “Depersonalization/Cynicism” depending on the profession and gender of employees, in%

The medical staff of the CHP, n		Subscale “Depersonalization/Cynicism”			
		Low level (1-4 points)	Intermediate level (5-9 points)	High level (10-13 points)	Very high level (more than 14 points)
Doctors n=87	Men (n=25)	8%	52%	24%	16%
	Women (n=62)	3,2%	30,6%	45,2%	21,0%
Paramedics n=137	Men (n=9)	22,2%	22,2%	22,2%	33,3%
	Women (n=128)	8,6%	21,9%	33,6%	35,9%

Table 4. Occupational burnout of medical workers on a subscale “Reduction of professional achievements” depending on the profession and gender of employees, in%

The medical staff of the CHP, n		Subscale “Reduction of professional achievements”			
		Low level (37-48 points)	Intermediate level (36-28 points)	High level (27-22 points)	Very high level less than 22 points)
Doctors n=87	Men (n=25)	24,0%	32,0%	16,0%	28,0%
	Women (n=62)	8,1%	45,2%	33,8%	12,9%
Paramedics n=137	Men (n=9)	0	66,7%	11,1%	22,2%
	Women (n=128)	6,25%	35,9%	31,3%	26,6%

The phase of «Depersonalization/Cynicism» P.B. has characterized by increased psychological distancing from work, decreased empathy, and cynical attitude towards others, patients, pessimistic thoughts about work. Regarding the formation of this phase of “Depersonalization/Cynicism” in medical staff on the indicator of “Exhaustion”, it averaged almost the same level: doctors – 8.1 points and SMP – 8.3 points at $p \leq 0.05$.

According to table 3, depersonalization has observed in 66% of women physicians, with high and very high levels recorded in 45.2% and 21.0% of cases, respectively. Among women with SLE, this figure is slightly higher – 69.5% (high and very high levels have registered in 33.6% and 35.9% of cases, respectively). For male physicians and male SMP, these rates are 40% and 55.5%, respectively.

These results indicate a decrease in empathy and cynical attitude towards patients by 2/3 of female medical staff and every other male medical staff, which creates a stigma for the mentally ill and is a violation of moral and ethical principles of physician behavior and unacceptable.

The third stage of P.B. research concerned the definition of the phase of “Reduction of professional achievements” in medical workers, which is characterized by negative self-esteem, the emergence of employees’ feelings of incompetence in their professional field, awareness of failure in it, curtailment of professional activities. Professional responsibilities, reduced professional efficiency, decreased professional motivation, and self-esteem. According to the results of research, it has established that the formation of “Reduction of professional achievements” in medical staff on the indicator of “Resistance” was due to inadequate industrial emotional response in doctors – 15.0 points and in SMP – 15.1 points; reduction of professional responsibilities of doctors – 13.7 points, SMP – 16.1 points; emotional and moral disorientation in doctors – 12.3 points, in SMP – 11.9 points. The average level of reduction of professional achievements in physicians was 28.2 points, in SMP – 25.8 points.

According to the data of table 4, the reduction of personal achievements has observed in 57.9% of SMP women, with high and very high levels have registered in 31.3% and 26.6% of

cases, respectively. Among women doctors, this figure is slightly lower – 46.7% (high and very high levels have registered in 33.8% and 12.9% of cases, respectively). In male doctors and SMP men, these figures are lower and are at 42% and 33.3%, respectively.

Based on the study, we noted an unusually high degree of formation of PREV in SMP than in physicians due to their constant physical contact with patients and, therefore, the continual action of psycho-traumatic factors at work. These include unsatisfactory working conditions, high responsibility, and workload, long work shifts, aggression from patients and their relatives, low wages.

According to the calculations of the integrated burnout rate, the high level was SMP for women – 43.8% for male doctors – 40.0% and for women doctors – 37.1%. To assess the integrated indicator of the subscale, the following are several degrees – 3-4 points; average degree – 5-6 points; high degree – 7-9 points; very high – more than 9 points [15]. According to our data, the average score for doctors was 7.3 points and for SMP – 8.1 points, which has estimated as a high level of emotional burnout, which is comparable to the results of many other authors [9,11,13,14,19].

Therefore, it is necessary to continually monitor the medical teams for timely identification of the causes of the formation of PER and P.B., preventive measures to minimize them and prevent pre-disease conditions. Studies have also shown that stress, emotional exhaustion, signs of anxiety, and depression in health care workers can lead to reduced job satisfaction, teamwork, and personal problems that can occur [18]. According to a survey of medical staff in hospitals in South Bohemia, 79.0% of respondents considered it necessary to carry out preventive measures against PER [6]. Both sophisticated and individual pieces of training, training for prevention, and treatment of already formed PREV at medical workers have offered. Instructions on communication and assertiveness showed a positive result in reducing the level of signs of anxiety and depression and thus reducing burnout in health care workers and increase the number of satisfied patients in terms of quality of service, right attitude towards them [10,20].

The solution to the problem of emotional burnout should begin with the stage of preparation of future doctors, paramedics to choose a profession, at the scene of training, during the performance of professional duties. According to the authors [3,7], an essential factor in overcoming OER in the early stages is the preparation of students for the future profession of both psychiatrists and psychologists. You need to master the skills of understanding other people, emotional stability, self-regulation, social maturity of the individual, learning the skills of relaxation, passionate culture, and competence. Every healthcare professional needs to be able to cope successfully and consistently with COPD and minimize it. But unfortunately, today requires not only from future doctors, nurses, emotional stability, self-regulation, social maturity, but also psychological culture in society as a whole [12].

Preventive measures to prevent COPD in medical staff also include: conducting psychological training, lectures, learning techniques, and methods of self-regulation of the communicative, emotional, volitional, motivational sphere of personality. The professional activity of doctors and SMP requires constant adaptation to the performance of professional duties without harm to the patient, relatives of the patient, colleagues, and relatives by continually carrying out preventive and corrective measures of emotional state, competence, the culture of health care workers.

In the perspective of further research is the study of an effective system of prevention of PWD in the medical staff of the CHP.

Conclusions. As a result of a study on the detection of emotional and occupational burnout syndromes in the medical staff of the regional psychiatric hospital in Vinnytsia, which was attended by 224 experienced medical professionals with more than ten years of experience, the following has established.

1. Among the studied contingents, women working in the positions of midwives are the most psychologically resilient, and the degree of formation of "Exhaustion" in the last phase of the PREV is the lowest (11.1%). SMP men, on the other hand, are the most vulnerable to OER and the formation rates in each phase of OER are the highest in comparison with other studied contingents and increasing in the dynamics of OER formation and were: in the stress phase – 22.6%, phase "Resistance" – 35.5%, in the aspect of "Depletion" – 39.1%. Given that the IEC, according to ICD-11 (2019), is classified as a pre-disease manifestation (rubrication: "Adaptation disorders" – F43), every second or third male SMP specialist needs psychological help for emotional burnout.

2. Medical staff with higher education by gender had no differences. Still, the indicators of formation in each phase of the EWC were significantly high: in the stress phase in male doctors – 19.4%, in women-doctors – 20.0%; in the "Resistance" phase – 35.5% and 36.0%, respectively; in the stage of "Depletion" – 11.3% and 12.0%, respectively. Therefore, every tenth doctor needs psychological rehabilitation for PREV.

3. When comparing the degree of formation of PER in specialists with secondary and specialists with higher education, it has found that the phase of the stress of psycho-emotional state in medical workers was associated with actual experiences: traumatic circumstances doctors – 14.2 points, SMP – 14.1 balls; signs of anxiety and depressive response doctors – 10.6 points, SMP – 9.9 points; dissatisfaction with themselves doctors – 9.5 points, SMP – 9.2 points, which did not reveal a significant difference between the specified medical staff. However, the feeling of being driven into a cell in the SMP has registered at the

level of 7.5 points, which was 1.3 times (5.5 points) higher than in physicians at $p < 0.02$.

4. In the formation of the phase of emotional exhaustion of P.V. syndrome, the leading symptoms of psychosomatic and psychophysiological disorders have probably more pronounced in SMP – 10.4 points than in doctors – 8.4 points (at $p < 0.05$). A high level of emotional exhaustion has observed in 33.3% of men SMP, which was 1.7 times higher than women (women-doctors – 19.4%, women SMP – 19.5%) and 2.7 times higher than men-doctors (12.0%). A very high rate of emotional exhaustion was observed only in women. In SMP, this figure (14.8%) was 4.6 times higher than in doctors (3.2%) due to their higher emotional lability and rapid emotional exhaustion.

5. Depersonalization (cynicism) has observed in 69.5% of women with SPM; in 66% of women doctors, in men-doctors and men of SMP, these indicators were registered at the level of 40% and 55.5%, respectively. These results are indicating a decrease in empathy and cynical treatment of patients by 2/3 of female medical staff and every other male medical team and create a stigma for the mentally ill, which is unacceptable.

6. Reduction of personal achievements, in other words, feelings of incompetence in their professional field, was observed in 57.9% of women SMP, 46.7% of women-doctors, 42% of men-doctors, and 33.3% of men SMP.

These studies indicate the presence of harmful occupational conditions that lead to high levels of emotional exhaustion, depersonalization, reduction of professional achievements, and calls into question the possibility of continuing to perform their professional duties by every second health worker and require outpatient treatment to prevent the transition of syndromes. PREV and P.V. in diseases.

To solve the problem of burnout in health care workers who works in psychiatric hospitals and prevent their transition to disease, the following measures have proposed:

1. Improving the material and technical base of mental health care facilities and creating the best conditions for the organization of health and safety conditions for health workers, in particular, the arrangement of psychological relief rooms for health workers in each department.

2. It has recommended conducting pieces of training, lectures, conferences on psychological and psychiatric topics with elements of medical ethics, morality, and deontology among doctors and SMP and parts of training aimed at developing stress resistance in medical staff of psychiatric wards – 2 times a year based on the principal workplace.

3. To identify the initial stages of the formation of occupational stress in psychiatric wards, it has recommended conducting psychodiagnostic screening 1-2 times a year.

4. It is expedient to include a set of classes, the training aimed at informing them about the mechanisms of formation and clinical characteristics of occupational stress, as well as the development of resistance to occupational stress in the system of pre- and postgraduate education of doctors and secondary medical workers of psychiatric departments.

5. It has recommended developing a network of individual psychological counseling of medical workers of psychiatric wards of the CHC at the principal place of work, experiencing occupational stress, reduced professional efficiency, and timely detection of health disorders.

6. It is advisable to introduce the diagnosis of somatoform disorders to prevent somatic pathology during the mandatory medical examination with testing by psychologists - once a year.

All of the above measures will help prevent burnout in health

care workers in psychiatric hospitals, prevent its transition to disease, and destigmatize patients.

REFERENCES

1. Вежновець, Т.А., Парій, В.Д. Синдром емоційного вигорання в медичних працівників хірургічних відділень із позиції кадрового менеджменту. Україна. // Здоров'я нації, (2016). 1-2(37-38), 41-47.
2. ВООЗ. Женева. 2019. <https://www.umj.com.ua/article/158015/shhonaspravdi-zatverdili-v-mkh-11>
3. Галян, А.І. Особистісні ресурси як чинник подолання напружених ситуацій у медичних працівників. // Science and Education a New Dimension. // Pedagogy and Psychology, (2015). III(35). Issue: 71, 78-81.
4. Горачук, В.В. Наукове обґрунтування системи професійної реабілітації лікарів-педіатрів поліклінічних закладів: автореф. дис. к.мед.н.: 14.02.03. 2009. 26 с.
5. Карвацька, Н.С., Гринько, Н.В., Савка, С.Д., Кауней, Т.Г. Емоційне вигорання в практиці лікарів загальної практики. // WORLD SCIENCE, (2018). 4(32), 4-7.
6. Кастнерова, М., Бабінець, Л.С., Боровик, І.О., Бабінець, А.І. [та ін.] Синдром вигорання – важлива проблема підготовки медичних сестер (досвід Південної Чехії). // Медична освіта, (2018). №1, 75-78. Doi: 10.11603/me.2414-5998.2018.1.8825
7. Лазуренко, О.О. Психологія професійного здоров'я фахівця: до проблеми профілактики емоційного вигорання та формування емоційної компетентності лікаря. // Fundamental and Applied Researches in Practice of Leading Scientific Schools, (2016). 1(13), 140-154.
8. Мазепа, Ю. С. Діагностика синдрому професійного вигорання лікарів багатопрофільного закладу охорони здоров'я. // Здобутки клінічної і експериментальної медицини, (2016). 4, 67-69. Doi: 10.11603/1811-2471.2016.v0.i4.7081
9. Марута, Н.О., Чабан, О.С., Каленська, Г.Ю. Особливості емоційного вигорання в працівників сфери охорони неврологічного й психічного здоров'я. // Міжнародний неврологічний журнал, (2019). 7(109), 22-29. Doi:10.22141/2224-0713.7.109.2019.183009
10. Потаскалова, В. С. Тренінги комунікативності і асертивності як способи попередження професійного вигорання медичного персоналу та підвищення якості надання медичної допомоги населенню. // Сімейна медицина, (2015). №3, 71-73.
11. Савка, Ю.М., Сливка, Я.Ш., Поляк-Митровка, І.І. [та ін.] Синдром професійного вигорання у медичних працівників м.Ужгород. // Проблеми клінічної педіатрії, (2018). №1(39), 66-72.
12. Андреева, И.Н. Эмоциональный интеллект: исследования феномена. // Вопросы психологи, (2006). 3, 78-86.
13. Мудренко, И.Г., Потапов, А.А., Сотников, Д.Д., Свириденко, Д.Ю., Юрченко, В.С. Формирование синдрома сгорания у медицинских работников различных специальностей. // Журнал клинических и экспериментальных медицинских исследований, (2016). 4(2), 316-323.
14. Петрова, Е.В., Семенова, Н.В., Алехин, А.Н. Закономерности развития и особенности синдрома эмоционального выгорания у врачей и медицинских сестер психиатрических учреждений. // Вестник Томского государственного педагогического университета, (2011). №12, 194-199.
15. Райгородський Д.Я. Практическая психодиагностика. Методики и тесты: // Уч.пособ. (2005). 672 с.
16. Amofo, E., Hanbali, N., Patel, A., Singh, P. What are the significant factors associated with burnout in doctor? // Occup Med (Lond), (2015). 65(2). 117-121. doi:10.1093/ocmed/kqu144
17. Azam, K., Khan, A., Alam, M.T. Causes and Adverse Impact of Physician Burnout: A Systematic Review. // J Coll Physicians Surg Pak, (2017). 27(8). 495-501.
18. Botha, E., Gwin, T., Purpora, C. The effectiveness of mindfulness based programs in reducing stress experienced by nurses in adult hospital settings: a systematic review of quantitative evidence protocol. // JBI Database Sistem Rev Implement Rep, (2015). 13(10). 21-29. doi: 10.11124/jbisrir-2015-2380
19. Degen, Ch. Physicians' intention to leave direct patient care: an integrative review. // Human Resources for Health, (2015). Sept. (8), Vol.13. 74.
20. Despland, J.N., Duc Marwood, A., Herrera, F., Maccaferri, G.E. Psychotherapy training for psychiatrists: issues and challenges. // Rev Med Suisse, (2016). 12(531), 1549-1553.
21. Rotenstein, L.S., Torre, M., Ramos, M.A., Rosales, R.C. [et al.] Prevalence of Burnout Among Physicians: A Systematic Review. // JAMA, (2018). 320(11), 1131-1150. doi:10.1001/jama.2018.12777
22. Suleiman-Martos, N., Albendin-Garcia, L., Gomez-Urguiza, J.L. [et al.] Prevalence and Predictors of Burnout in Midwives: F Systematic Review and Meta-Analysis. // Int J Environ Res Public Health, (2020). 17(2). 641. doi:10.3390/ijerph17020641
23. Vandebroek, S., Van Gerven, E., De Witte, H., Vanhaecht, K., Godderis, L. Burnout in Belgian physicians and nurses. // Occup Med (Lond), (2017). 67(7), 546-554.
24. Williams, E.S., Manwell, L.B., Konrad, T.R., Linzer, M. The relationship of organizational culture, stress, satisfaction, and burnout with physician-reported error and suboptimal patient care: results from the MEMO study. // Health Care Manage Rev, (2007). 32(3), 203-212. doi: 10.1097/01.HMR.0000281626.28363.59
25. Zhang, S., Wang, J., Xie, F., Yin, D. [et al.] A cross-sectional study of job burnout, psychological attachment, and the career calling of Chinese doctors. // BMC Health Serv Res, (2020). 20(1), 193. doi: 10.1186/s12913-020-4996-y
26. Zhou, X., Pu, J., Zhong, X., Zhu, D. [et al.] Burnout, psychological morbidity, job stress, and job satisfaction in Chinese neurologists. // Neurology, (2017). 88(18), 1727-1735. doi:10.1212/WNL.0000000000003883

SUMMARY

BURNOUT IN MENTAL HEALTH PROFESSIONALS AND THE MEASURES TO PREVENT IT

¹Chorna V., ²Makhniuk V., ¹Pshuk N., ¹Gumeniuk N., ¹Shevchuk Yu., ¹Khlietova S.

¹National Pirogov Memorial Medical University, Vinnytsia;
²State Institution «A.N. Marzиеiev Institute for Public Health, National Academy of Medical Sciences of Ukraine», Kyiv, Ukraine

The article presents a retrospective analysis of the concept of occupational and emotional burnout syndrome in medical professionals in the field of mental health. The analysis of domestic and foreign scientific sources, biblio-semantic, analytical, and statistical research methods had used in work. The leading causes of burnout and their factors had identified.

The study involved 224 respondents – the medical staff of the regional psychiatric hospital in Vinnytsia. Among the subjects were women – 84.8%, and men – 15.2%. Of the total number of subjects, doctors accounted for 38.8% (87 people), nurses – 61.2% (137 people). The average age of respondents among doctors was 44.6±12.2 years, among SMP 37.2±11.4 years. Work experience in professional activities was: among doctors – 19.7±12.3 years and SMP – 15.5±11.1 years.

For the experimental study had used, the psychodiagnostic method of emotional exhaustion Boyko V.V. and the adapted method of Vodopyanova N.E., The significance of the difference, was assessed using Student's t-test (t).

Recommendations for mental health prevention measures for mental health professionals have developed. The prospect of further research on the problem of burnout is to study an effective system of prevention for the medical staff of health care institutions in Ukraine.

Keywords: predictors of emotional burnout development, psychiatrists, medical workers, occupational stress, prevention.

РЕЗЮМЕ

ПРОФЕССИОНАЛЬНОЕ ВЫГОРАНИЕ У МЕДИЦИНСКИХ РАБОТНИКОВ СФЕРЫ ОХРАНЫ ПСИХИЧЕСКОГО ЗДОРОВЬЯ И МЕРЫ ПО ЕГО ПРЕДОТВРАЩЕНИЮ

¹Чорна В.В., ²Махнюк В.М., ¹Пшук Н.Г., ¹Гуменюк Н.И., ¹Шевчук Ю.Г., ¹Хлестова С.С.

¹Винницкий национальный медицинский университет им. Н.И. Пирогова; ²Государственное учреждение «Институт общественного здоровья им. А.Н. Марзеева Национальной академии медицинских наук Украины», Киев, Украина

В статье представлен ретроспективный анализ понятия синдрома профессионального выгорания у медицинских работников сферы охраны психического здоровья. Проведен анализ отечественных и зарубежных научных источников, использованы библиосемантический, аналитический и статистический методы исследования. Определены основные причины и факторы профессионального выгорания.

В исследовании приняли участие 224 респондента – медицинские работники Обласной психиатрической больницы г. Винница. Среди участников женщин было 190 (84,8%), мужчин – 34 (15,2%). Из общего числа участников врачей было 87 (38,8%), средний медицинский персонал (СМП) – 137 (61,2%). Средний возраст респондентов среди врачей составил 44,6±12,2 г., среди СМП – 37,2±11,4 г. Стаж работы врачей по профессиональной деятельности составил 19,7±12,3 г., СМП – 15,5±11,1 г.

В ходе исследования использованы психодиагностический метод эмоционального выгорания Бойко В.В. и адаптированная методика Водопьяновой Н.Е. Достоверность различий оценивали с помощью t-критерия Стьюдента.

На основании анализа полученных результатов разработаны рекомендации по мерам предотвращения выгорания у медицинских работников сферы охраны психического здоровья.

რეზიუმე

პროფესიული გადაწვა ფსიქიკური ჯანმრთელობის დაცვის სფეროს მედიცინის მუშაკებში და ღონისძიებები მისი თავიდან აცილებისათვის

¹ჩორნა, ²მახნიუკი, ¹ნ.პშუკი, ¹ნ.გუმენიუკი, ¹ი.შევჩუკი, ¹ს.ხლესტოვა

¹ვინიცას ნ.პიროგოვის სახ. ეროვნული სამედიცინო უნივერსიტეტი; ²უკრაინის მედიცინის მეცნიერებათა ეროვნული აკადემიის ა.მარზეევის სახ. საზოგადოებრივი ჯანმრთელობის ინსტიტუტი, კიევი, უკრაინა

სტატიაში წარმოდგენილია პროფესიული გადაწვის ცნების რეტროსპექტული ანალიზი ფსიქიკური ჯანმრთელობის დაცვის სფეროს მედიცინის მუშაკებში. ჩატარებულია სამამულო და უცხოური წყაროების ანალიზი, გამოყენებულია კვლევის ბიბლიოსემანტიკური, ანალიტიკური და სტატისტიკური მეთოდები. განსაზღვრულია პროფესიული გადაწვის სინდრომის ძირითადი მიზეზები და ფაქტორები.

კვლევაში მონაწილეობა მიიღო 224 რესპოდენტმა – ქ. ვინიცას საოლქო ფსიქიატრიული საავადმყოფოს მედიცინის მუშაკები. კვლევაში ჩართულთა შორის 190 (84,8%) იყო ქალი, 34 (15,2%) – მამაკაცი. მონაწილეთა საერთო რაოდენობიდან ექიმი იყო 87 (38,8%), საშუალო სამედიცინო პერსონალი - 137 (61,2%); ექიმ-რესპოდენტების საშუალო ასაკი - 44,6±12,2წ., საშუალო სამედიცინო პერსონალის - 37,2±11,4 წ. ექიმების პროფესიული საქმიანობის სტაჟმა შეადგინა 19,7±12,3 წ., საშუალო სამედიცინო პერსონალის - 15,5±11,1 წ.

კვლევის პროცესში გამოყენებულია ემოციური გადაწვის განსაზღვრის ვ. ბოიკოს ფსიქოდიანოსტიკური მეთოდი და ნ. ვოდოპიანოვას ადაპტირებული მეთოდი. განსხვავებათა სარწმუნოება ფასდებოდა სტიუდენტის t-კრიტერიუმის გამოყენებით.

მიღებული შედეგების ანალიზის საფუძველზე შემუშავებულია რეკომენდაციები ღონისძიებებთან დაკავშირებით პროფესიული გადაწვის თავიდან აცილებისათვის ფსიქიკური ჯანმრთელობის დაცვის სფეროს მედიცინის მუშაკებში.