

MEDICAL JOURNALS IN THE REPUBLIC OF MACEDONIA AFTER THE SECOND WORLD WAR

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Abstract: An attempt was made to retrospectively examine the medical journals published in the Republic of Macedonia since the Second World War. An analysis was made of the basic data concerning the journals, most of which are deposited in the Central Library of the Medical Faculty at the Ss. Cyril and Methodius University in Skopje, and a few deposited in the National and the St. Clement of Ohrid University Library in Skopje. Some journal-related data were obtained by searching the electronic databases (mainly Medline/PubMed, Hinari, Ebsco) and the Internet as a global system of network of networks.

After the Second World War several attempts at publishing biomedical journals have been made in the Republic of Macedonia. The number of journals has increased especially in the last ten years. Only a few of them have a long-term publishing tradition. In fact, the only journal to maintain continuity in publishing until today is the Macedonian Medical Review, that has been published regularly since 1946 until today. It is an official publication of the Macedonian Medical Society.

The Annual of the Medical Faculty in Skopje was published from 1954 to 1997 under this name, and in 1997 it was renamed the Macedonian Journal of Medicine. There was an interruption in its publishing in 1999 and 2000 and it was regularly published until 2007, after which its publication ceased once more.

In addition to these two journals, other medicine-related journals that have been published in the Republic of Macedonia (some of them, however, irregularly or they have ceased publication) are Acta Morphologica (since 2004); Physioacta (since 2007); Paediatrics Annual Review (since 1996); Epilepsy (since 1997); Acta Ortopedica et Traumatologica Macedonia (since 1999); MJMS – Macedonian Journal of Medical

Sciences (since 2008); Prilozi Macedonian Academy of Arts and Sciences (since 1969); Macedonian Dental Review (since 1977); Dental Review (since 2007); Macedonian Pharmaceutical Bulletin (since 1964); Macedonian Veterinary Review (since 1972); Archives of Public Health (since 2009); Medicus (since 2004); Vox Medici (since 1992); Social Medicine – Professional Journal for Public Health (since 2009); Journal of Special Education and Rehabilitation (since 1997); Balkan Journal of Medical Genetics (since 1998); BANTAO Journal (since 2003); Public Health – Journal for Health Education (1952–1986); Acta Chirurgica Iugoslavica (since 1954); Acta Chirurgica Macedonica (2001–2004); We You and Health-care (since 2006); Newsletter – Health, Kavardarsi (1999); Medical Review – Professional Journal of the Medical Workers in Shtip (2001); Medicus – Information Newsletter of Public Health, General Hospital Shtip (2006); Medical Bulletin of the Health Service of the Skopje Army Region (1957–1987); Medical Spectrum – Professional Journal of Alkaloid – Skopje (1972–1981); Healthcare Newsletter, Kumanovo (1990–1996); Healthcare, Shtip (1979–1994); Healthcare Platform, Bitola (1975–1984); Journal with papers of the Society of Science and Art, Prilep; Healthcare Newsletter of the Medical Center Prilep (1975–1986); Healthcare Newsletter, Strumica (1978–1988); Contributions, a Journal of the Society of Science and Arts from Bitola; Doctors' Newspaper – Informative and educational newspaper of the Macedonian Medical Association (2010).

A number of medical journals appear and after a short period of time disappear. The papers are mainly written in the Macedonian language, and none of the journals are currently indexed in Pub/Med, except for the Prilozi/Contributions of the Macedonian Academy of Sciences and Arts.

In our opinion, to improve the quality of the published papers in the Macedonian journals, several goals have to be accomplished: better equipment and facilities in the hospitals, institutes and research centres that would yield better basic research and clinical trials; better basic education on how to write and publish scholarly/scientific papers, which has to be conducted at both undergraduate and postgraduate levels, along with lifelong learning; better peer-review processes; better editorial policy of the journals; compliance with international standards/uniform requirements for manuscripts submitted to biomedical journals; fostering the goals of the World Association of Medical Editors and European Association of Science Editors, etc. If these tasks and goals are realized, then we can build a solid ground to better present our medical results to the world.

Key words: Medical Journals, Republic of Macedonia.

Introduction and Aims

The aim of the study is to make a survey of the medical journals in the Republic of Macedonia after the Second World War. The idea is to evaluate the quality of the journals and to describe the current status of Macedonian medical journals as well as to provide some suggestions how to improve their quality and scientific level.

Material and methods

For the purposes of this study, we have searched through the serial holdings of the Central Medical Library (CML) at the Skopje Medical Faculty and the National and the St. Clement of Ohrid University Library (NUL). The largest number of medical journals located in the CML was analyzed on the *de visu* principle, being the most appropriate method of presenting the general and common characteristics of the journals. In addition, these journals publish scholarly, scientific and research articles in the field of biomedical sciences and bear all the necessary features to be categorized in this type of publications. Both the card/book and the online catalogues of CML and NUL were retrieved. Some personal or institutional communications also served as a source of information.

A total of 37 journals, either in printed or electronic version, was included in the study. Twenty-three journals in printed and/or electronic version that are found in the CML holdings were analysed: Macedonian Medical Review (MMR), Annual of the Medical Faculty in Skopje/Macedonian Journal of Medicine, Acta Morphologica, Physioacta, Pediatrics Annual Review, Epilepsy, Acta Ortopedica et Traumatologica Macedonica, MJMS – Macedonian Journal of Medical Sciences, Prilozi (Contributions): Macedonian Academy of Sciences and Arts, Macedonian Dental Review, Macedonian Pharmaceutical Bulletin, Macedonian Veterinary Review, Archives of Public Health, Medicus, Vox Medici, Social Medicine: Professional Journal for Public Health, Journal of Special Education and Rehabilitation, Balkan Journal of Medical Genetics, BANTAO Public Health Journal for Health Education, Acta Chirurgica Iugoslavica, Acta Chirurgica Macedonica, We, You and Health-care.

Data referring to 14 titles of journals were obtained from the COBISS system, searching the COBIB.MK, the union bibliographic/catalogue database of R. Macedonia, and particularly the catalogue database of the NUL. Some of these data have to be taken with precaution because they are very limited and only consulted online.

All of the analysed journals were checked on the Internet, with a special accent on the retrieval of Medline/PubMed and Google Scholar, as well as the electronic version of the journals.

Results

Each of the comprised journals is presented with its general and specific characteristics. In some places there are additional data worth mentioning.

Македонски медицински преглед/Macedonian Medical Review (MMR), ISSN 0025–1097, journal of the Macedonian Medical Association

(MMA), is the longest-standing journal in the field of medicine in the Republic of Macedonia. The first issue was published in 1946 and ever since then the journal has appeared without a break for sixty-five years now. The first editor-in-chief was H. Manchev, followed by eminent professors who held the editorship with great enthusiasm and, moreover, on a voluntary basis. These include: B. Spirov, D. Atanackovic, I. Tadzer, M. Stankovski, J. Nedelkovski, J. Novak, Lj. Grozdev, D. Stojanova, Gj. Zografski. Since 2010 the editor-in-chief has been G. Spasovski. From 1946 until 2007 the journal was published in six issues per year, most of them as double issues. Over the last three years, the journal has been issued in three numbers per year. When Macedonia was within the frameworks of SFR Yugoslavia, papers were written in the languages of the former republics as well as in some of the recognized world languages. Since the independence of the Republic of Macedonia, MMR publishes manuscripts written in the Macedonian language with an abstract in English; they are proof-read and language-edited, which is indicated on the cover page. The journal has been financed by the Ministry of Science, the Republic and the City of Skopje, Self-governing Association of Interest for Health, and by the membership fees of MMA members. It has also been sponsored by the Skopje Health Centre, the Institutes and Clinics of the Medical Faculty and other medical centres throughout the Republic, by the Open Society Humanitarian Foundation in Skopje, by Alkaloid, etc. MMA has its own website, and bibliographic information related to a very small number of published papers in MMR is available to the public: <http://www.mld.org.mk/> In addition to the regular numbers, approximately 80 supplements containing papers or summaries from particular congresses, symposia and other gatherings held in Macedonia have also been issued. It is important to mention that three separate bibliographies comprising all the papers published in MMR have been prepared and published. They include papers and information from all numbers for the following periods 1946–1985; 1986–1995 and 1996–2006. This data deserves special mention because this is a unique journal which has bibliographies that comprise all papers published until 2006. For a very short period of time, prior to 1965, only a few papers from this journal were included in Index Medicus (Medline/PubMed) where the journal's abbreviated title is Makedon Med Pregl. Otherwise, the accepted abbreviation written on the journal itself is Mak Med Pregled.

Годишен зборник на Медицинскиот факултет во Скопје/Annual of the Medical Faculty in Skopje with the accepted abbreviation God zb Med Fac Skopje, ISSN 0065–1214. The first volume of this journal was published in 1954 and its first editor-in-chief was V. Bujan. Thereafter, this function was carried out by A. Andreevski, A. Sadikario (who was editor-in-chief in continuity for 20 years and who made his own particular engagement and contribution in designing the journal and improving the quality of the printed mate-

rial), and M. Lazarevski. In 1997 the journal was re-named the Macedonian Journal of Medicine, with the abbreviation Mac Med Spi (MSM) and its new editor-in chief was M. Spiroski. Since its foundation, the publisher of this journal was the Medical Faculty in Skopje and one or two numbers a year were published. The articles were written in Macedonian or in French, English, German or other languages of the former Yugoslavia and after 1997 the articles began to be printed bilingually, in Macedonian and English. However, as a result of many unsolved questions, the journal was not published in 1999 and 2000. In 2001 a new editor-in-chief was appointed, Z. Guchev, and the last published volume was 53 from 2007. During the entire period of its publishing, the finances for its printing were covered by the Medical Faculty. For unknown reasons, there have been no new volumes of this journal since 2007, although it was the unique scientific-professional written representative of the teaching and scientific staff of the Medical Faculty. In the second number of vol. 32 (1984) *Bibliography of the Godishen zbornik of the Medical Faculty in Skopje for its thirty years of publication (1954–1983)* was published. Until now, this is the single prepared bibliography of papers published in God zb Med Fac Skopje or Mac Med Spi. It is noteworthy that this is the unique medical journal from our country, which for a considerable period (1963–1979) was included in Index Medicus (Medline/PubMed). Unfortunately, it is no longer one of the indexed journals, most likely the major reason being its irregular publication, or rather, its cessation of publication.

Acta Morphologica: a publication of the Association of Macedonian Anatomists and Morphologists (Acta Morphol); ISSN 1409–9837. The publisher of this journal is the Institute of the Anatomy at the Skopje Medical Faculty and the editor-in-chief is D. Tosovska-Lazarova. The first number was published in 2004 and since then the journal has appeared twice a year. In the beginning the papers were printed bilingually, in Macedonian and English, and since 2006 they have been printed in English with an abstract in Macedonian. They can be accessed in pdf on the following web site: www.webdoctor.com.mk

Physioacta is a journal of the Macedonian Association of Physiologists and Anthropologists; ISSN 1857–5587. The publisher is the Institute of Physiology and Applied Anthropology at the Skopje Medical Faculty and the editor-in-chief is V. Maleska-Ivanovska. The first volume was published in 2007 and since then it has appeared twice a year. The papers are written in Macedonian with an abstract in English. This journal does not have its own website.

Педијатрија: Година ревија/Paediatrics Annual Review; ISSN 1409–567X. As is written in the Foreword of the first issue printed in 1996, the goal of this journal is to publish papers presented at the annual educational seminars for paediatricians entitled "Innovations in Paediatrics", as well as pa-

pers presented at congresses of paediatricians in Macedonia. The publisher of this journal is the Association of Paediatricians in Macedonia. Over the past years the office of editor-in-chief has been held by M. Kochova, A. Sazdovski and Lj. Nikolovski. The published papers are written in the original (mother tongue) of the authors because there are participants from all around the world at the seminars and congresses. However, the journal has no website and no electronic access.

Епилепсија/Epilepsy: The Journal of the League against Epilepsy of R. Macedonia; ISSN 1409–617X. The merit for the foundation of this journal goes to R. Naumovski from the Neurology Clinic in Skopje. He was a long-standing editor-in chief. The first issue was published in 1997 and ever since then the journal has improved its quality. Papers are now prepared and structured according to clearly defined principles, containing an introduction, aim, material and methods, results, discussion and conclusion. In 2007, D. Nikodijevik and E. Cvetkovska took over the office of editors-in-chief. The journal is published twice a year, but has no website or electronic access. The papers are written in Macedonian and/or English.

Македонски ортопедско-травматолошки гласник = Acta Orthopaedica et Traumatologica Macedonica/Macedonian Orthopaedics and Traumatology Journal is an official publication of the Macedonian Association of Orthopaedics and Traumatology (MAOT), which is its publisher; ISSN 1409–8814. The accepted abbreviation is Acta Orthopaedica Traumatol Maced. The chairman of the Editorial Board is G. Zafiroski. The first issue was published in 1999; however, it is not published every year; the last printed number is from 2009 and it reflects the improvement both in the published papers and in the printing and technical editing, including language-editing and proof-reading. As is indicated in the journal, its printing is helped by different pharmaceutical companies and printing houses. The last two published issues (from 2007 and 2009) are available in pdf on the website of the Macedonian Association of Orthopaedics and Traumatology. www.maot.org.mk

MJMS – Macedonian Journal of Medical Sciences (print version ISSN 1857–5749, online version ISSN 1857–5773). The journal is published by the Institute of Immunobiology and Human Genetics; the editor-in-chief is M. Spiroski. At the moment this is the only journal in which the entire process of submitting and reviewing of manuscripts is done electronically. It is also noteworthy that this is an open access journal, published in both an electronic and a printed version four times a year. The first issue was published in 2008 and the papers are written in English. All data related to the process of submitting manuscripts, the review process, guidelines for authors, published papers, etc. can be found on the following website: www.mjms.ukim.edu.mk/ One of the key accomplishments of this journal is its indexing in a large number of databases,

including Directory of Open Access Journals (DOAJ), EBSCO, EMBASE, HINARI, Scopus, Index Copernicus, etc.

Прилози: Македонска академија на науките и уметностите, Одделение за биолошки и медицински науки/Contributions: Macedonian Academy of Sciences and Arts, Section of Biological and Medical Sciences; ISBN 0351–3254. The first volume was published in 1969; since 1980 this journal has been published by the Section of Natural Sciences and Mathematics at the Macedonian Academy of Sciences and Arts (MASA) twice a year. Then, the Editorial Board consisted of: D. Arsov, B. Popov and Gj. Filipovski. After the death of D. Arsov in 1974, H. Em joined the Editorial Board, and until 1980 its members were K. Micevski and P. Serafimov. In 1980 publication of the journal was taken over by a new section of MASA, the Section of Biological and Medical Sciences of the Macedonian Academy of Sciences and Arts, and, besides H. Em, A. Andreevski and K. Micevski were included on the Editorial Board. Later on, the members of the Editorial Board were: I. Tadzer, P. Davcev, G. Efremov, R. Lozanovski, M. Polenakovik, F. Murat, H. Klinkman, V. Serafimovski, R. Ingo Peter Kots, I. Vaskov, Z. Popov, I. Filipce, A. Skoklev, V. Matovski, and G. Rosoklija. The journal is published regularly twice a year. Until 2004, papers were written either in Macedonian or in some of the world-recognized languages and languages of former Yugoslavia. Since 2002 the editor-in-chief has been M. Polenakovik. He and the Editorial Board have made many positive and qualitative changes to improve the scientific level of the journal: the papers are written in English with an abstract in Macedonian, all of them have the necessary elements of a professional or scientific paper, the papers are reviewed by two reviewers, they are proof-read and language-edited, etc. This increasing trend in quality along with regular publication of the journal contributed to its inclusion in Medline (PubMed) (since 2004). Papers can be electronically accessed on the following website: www.manu.edu.mk/prilozi/ It is an open-access journal registered in the Directory of Open Access Journals (DOAJ).

Македонски стоматолошки преглед/Macedonian Dental Review, an official publication of the Skopje Faculty of Dentistry (Maced Stomatol Pregl), ISSN 0350–8129. The first and long-standing editor-in-chief was I. Tavchioski, and since 2006 M. Nakova has held this position. Since 1977 this journal has been regularly published four times a year. Papers are written in Macedonian with an abstract in English. It has been published with financial support from the Ministry of Education and Science of R. Macedonia.

Стоматолошка ревија/Dental Review, information mouthpiece published since 2007 by the Skopje Faculty of Dentistry. Its goal is to publish *in extenso* the papers presented at the post-educational seminars organized by the Faculty, that is, to present the latest achievements in the field of dentistry over the

past six months published in renowned world journals (to serve as a kind of dentistry digest or up-date). The editor-in-chief is A. Grchev. However, it is not regularly deposited in any of the libraries in Macedonia and it is not regularly published.

Македонски фармацевтиски билтен/Macedonian Pharmaceutical Bulletin, was published for the first time in 1964 under the name *Bulletin of the Pharmaceutical Society of SR Macedonia*, and the editor-in-chief was M. Pashoski, who unfortunately died after completing only two numbers of this journal. Later the journal was renamed *Bulletin of the Association of the Societies of Pharmacists in Macedonia* (YU ISSN-0897); it appeared as a double issue, although irregularly, and for many years the editor-in-chief was K. Dorevski. Since 2000 (vol. 46) *Macedonian Pharmaceutical Bulletin*, ISSN 1409-8695, has been issued, S. Kulevanova being the editor-in-chief. The idea behind the publication of this journal is explained in the Foreword by the Editorial Board striving for a higher quality by publishing original scientific and professional papers by domestic and foreign authors and inclusion of the journal in some of the world-renowned databases (such as Chemical Abstracts). The papers are written in Macedonian and/or English with an abstract in English/Macedonian. However, the journal lacks continuity in publication.

Македонски ветеринарен преглед/Macedonian Veterinary Review as an official journal of the Association of the Societies of Veterinary Doctors and Technicians of SR Macedonia appeared for the first time in 1972 (YU ISSN 0351-2088). The editor-in-chief was T. Nechev. Ever since then this journal has been regularly published and has improved the quality of its content. The editorial board has gone through a few changes, but the longest-standing editor-in-chief B. Dzhinleski made a great impact on this journal. From 1999 until 2007 *Macedonian Veterinary Review* (ISSN 1409-7621), a journal of the Faculty of Veterinary Medicine and Institute of Veterinary Medicine at the Ss Cyril and Methodius University had a new editor-in-chief, M. Dodovski; the cover design was changed and the papers started to be written bilingually, in Macedonian and English. Since 2008, the editor-in-chief has been V. Ilieski and the papers from the latest issue are available in electronic version on the website of the Faculty: www.fvm.ukim.edu.mk

Архиви на јавното здравје (АЈЗ)/Archives of Public Health (ISSN 1857-7148) is a medical journal published by the Institute of Public Health of the Republic of Macedonia. It is the "youngest" medical journal in our country. The editor-in-chief is V. Kendrovski and the papers are written either in Macedonian or English. The first number was published in 2009 on the occasion of the 85th anniversary of the foundation of the Institute, previously the Republic Institute for Health Protection.

Medicus, ISBN 1409-6366, a journal published by the Medical Centre in Tetovo. R. Izairi is the editor-in-chief. The impress and instructions for aut-

hors are written in Albanian. The submitted papers are published in Albanian, Macedonian or English. The first issue of this journal was published in 2004. Although numeration is irregular, it has been published on a regular basis twice a year. The journal can be electronically accessed at: www.medalb.com

Vox Medici (until March 2001, *Bilten/The Bulletin* – ISSN 1409–5890), is a professional doctors' voice of the Doctors' Chamber of the Republic of Macedonia, ISSN 1409–8865. The first number was published in 1992, six months after the Doctors' Chamber was founded. The first editor-in-chief was S. Jovkovski and the Editorial Board included: R. Naumovski, K. Korneti, O. Ognjanovska, M. Panovski, M. Polenakovik and A. Sajkovski. Since 2008 the editor-in-chief has been K. Zafirovska. The editorial policy aims to promote this journal to be not only a mere source of medical information, but a journal that publishes research papers. This year (2011) the journal celebrates its 10th anniversary of publication. The electronic version of this journal can be accessed at: www.lkm.org.mk/publikacii.htm

Социјална медицина: сѝручно сѝисание за јавно здравје/Social Medicine: Professional Journal for Public Health, ISSN 1857–6699, (the first two numbers issued under the name *Bulletin* actually contained mere information from the field of social medicine and public health prepared as word documents). In the next two numbers (commencing from 2009), the journal was renamed; it was given an International Serial Number, and included other types of information (such as information on projects, research, campaign results, published books) and professional papers. The aim of the journal is to make a contribution to continuous medical education in the field of public health. The last published issue is from 2010 and it is freely available on the website of the Specialist Association of Physicians of Social Medicine and Organization of Health-care: www.soc-med.org.mk/publikacii.htm The editor-in-chief is I. Glihorov and the publisher is the Specialist Association.

Дефектолошка теорија и практика (ДТП)/Journal of Special Education and Rehabilitation (JSER), print version ISSN 1409–6099, online version eISSN 1857–663X. It is a peer-reviewed international journal published by the Institute of Special Education and Rehabilitation of the Faculty of Philosophy in Skopje and the Macedonian Association of Special Educators. The first number was published in 1997 and the first editor-in-chief who held that office for 10 years was Lj. Ajdinski. Contributions from all the fields of special education, medicine, psychology, pedagogy, social policy and related sciences are considered for publication. Since 2008 the editor-in-chief has been V. Trajkovski. His engagement and enthusiasm have contributed to the transformation of this journal into a valuable scientific and professional publication, complying with the new concepts of printing and editing scholarly journals. It is now an

open access journal; it is included in many relevant databases, such as DOAJ, HINARI, Proquest, EBSCO and Scopus. JSER is published twice a year, and the papers are written bilingually, in Macedonian and English. They are language-edited and proof-read. It has to be emphasized that all issues of the journal, beginning from the very first one, are available in their electronic version at: <http://jser.fzf.ukim.edu.mk/>

Balkan Journal of Medical Genetics, abbreviation BJMG (ISSN 1311–0160), is an international, open access, paper-reviewed journal, of which the first issue was published in 1998. The publisher of the first numbers was the Medical Faculty in Sofia and D. Toncheva and G. Efremov were chief editors. Since 2000 the publisher has been the Macedonian Academy of Sciences and Arts and the office of editor-in-chief is held by the same professors. BJMG is published twice a year; it is open for the publication of articles involving all branches of medical genetics: human cytogenetics, molecular genetics, clinical genetics, immunogenetics, oncogenetics, pharmacogenetics, population genetics, etc. All articles are written in English and are immediately and permanently available online on the following website: www.bjmg.edu.mk The journal is indexed or abstracted in EMBASE (the Excerpta Medica database), Elsevier Biobase/CABS (Current Awareness in Biological Sciences), Scopus, Chemical Abstracts (CA), Versita, etc.

BANTAO Journal: Journal of the Balkan Cities Association of Nephrology, Dialysis, Transplantation and Artificial Organs, ISSN 1312–2517. Since 2009 the editor-in-chief is G. Spasovski and members of the Editorial Board are eminent representatives from Balkan cities and abroad. The journal publishes papers written in English that refer to clinical and laboratory investigations of relevance to nephrology, dialysis and transplantation, as well as those from basic immunology, anatomy and physiology of the kidneys. The entire process of submitting and reviewing the manuscripts is electronically done and after their acceptance they are freely available on the website of the Association: www.bantao.org/ It is an open access journal, registered in DOAJ.

Народно здравје – сѝисание за здравсѝивено ѝросветѝување/Public Health: Journal for Health Education, ISSN 0465–8973. This is one of the oldest journals published in R. Macedonia; however, its publication ceased a long time ago. The first number was published in 1952, and the publisher was the Institute of Health Education of NR Macedonia, Skopje. The first editor-in-chief was M. Ilievski, social activist, educator, and founder of the Institute. Later, the publication was taken over by the Department of Health Education at the Central Hygienic Institute in Skopje, and the chief editors were B. Korubin and B. Ristovski. When this Institute was disbanded, the publication of the journal also ceased. In the collections of the Central Medical Library there are

numbers of this journal dating from its first issue until issues of 1979, and in the National and University Library until 1986.

Acta Chirurgica Iugoslavica – As a tribute to a number of distinguished Macedonian doctors, particularly surgeons, and especially in honour of K. Serafimov, we thought it appropriate to include data on this journal as a mutual professional mouthpiece of all surgeons and orthopaedic surgeons of former Yugoslavia. The first issue of *Acta Chirurgica Iugoslavica* was published in 1954. The member from Skopje on the first Editorial Board was B. Oberhofer, and S. Stavridis and B. Dragojevik were included in 1958. In 1963 K. Serafimov was included in the activities concerning the publication of this journal and in 1971/72 its publication moved to Skopje and was the responsibility of the Surgical Section of the Macedonian Medical Association. K. Serafimov became editor-in-chief and in 1969 P. Tofovik became a member of the Editorial Board. The journal continued to be published in Skopje up to 1989 (for 17 years in continuity), with two issues per year, with additional supplements from congresses, symposia and other meetings of surgeons. Papers were written in Serbo-Croatian with summaries in English, French, German or another of the recognized world languages. Today the journal is still published under the same name by the Serbian Association of Surgeons situated in Belgrade; it is an open access journal. The fact that it has been indexed in the Index Medicus/PubMed from the year 1975 (and it is still indexed) should also be mentioned.

Acta Chirurgica Macedonica, Journal of the Association of Macedonian Surgeons with an international character, ISSN 1409–5181. After the disintegration of Yugoslavia the need was felt for the renewal of a publication that would publish material by Macedonian surgeons. Thus in 2001 the journal *Acta Chirurgica Macedonica* appeared. The first editor-in-chief was V. Stolevski, who approached this activity with great enthusiasm. Papers were printed bilingually, both in Macedonian and English. However, due to financial and other reasons, the publication of this journal ceased after 3 years (2004).

Hue Bue u zdravjeūo/We, You and Health-care, ISSN 1857–5463. The publisher is the Prim. Dr. Samardzhiski Private Physicians' Office, from Shtip. The journal includes current medical information, but according to the words of the editor-in-chief C. Maneva-Samardzhiska the intention of the Board is to include professional and scientific papers, too. Manuscripts are written in Macedonian and are available on the web site of this private office: www.nvz.com.mk

Прилози/Contributions, a journal of the Society of Science and Arts in Bitola, ISSN 0420–0950. In 1960 the first scientific association named the Scientific Society of Bitola was founded (later renamed the Society of Science and Arts, and today Macedonian Scientific Society), Zh. Vasilevski being its first chairman. It was then that the idea of publication a scientific mouthpiece of

the Society was launched, and it was named *Prilozi/Contributions*. The first Editorial Board consisted of M. Konstantinov, editor-in-chief, K. Cingarovski, D. Dimitrovski-Takuli and T. Hr. (Spanakova) Doga. Some issues of this journal are completely dedicated to papers presented at scientific gatherings with a specific topic. Such, for example, is the double issue from 1986 that includes papers discussing history of medicine in Bitola and other cities in the south-eastern region of SR Macedonia. The journal appears regularly twice a year or as a double issue, and the papers are written in Macedonian.

Медицински билџен саниџетџске службе Скопје армијске обласџи/Medical Bulletin of the Health Service of the Skopje Army Region (ISSN C400–1532), later renamed *Macedonian Bulletin of the Skopje Army Region* (YU ISSN 0351–0581). The first number appeared in 1959 and the publisher was the Military Hospital in Skopje. The last published number is from 1987. Papers were written in Serbian, and some had an abstract in English.

– *Информатџивен билџен – здравје/Informative Newsletter – Health*, Medical Center Kavadarci (the first year of publication is 1999); editor-in-chief M. Petrov.

– *Здравсџивен весник/Healthcare Newsletter*, Kumanovo Medical Centre; editor-in-chief T. Kolaroska; it was published on an annual basis and in the NUL holdings it can be traced from 1990 through to 1996.

– *Медицинска ревија: стручно списание на здравствените работници на Штип/Medical Review*: professional journal of the medical workers in Shtip. The first issue was published in 2001; it appeared in six numbers per year; the first editor-in-chief was M. Ristov.

– *Здравје: весник на вработените во РО Медицински центар Штип/Healthcare*: journal of those employed in the Shtip Medical Centre; it has no ISSN; it was irregularly published from 1979 until 1994; the first editor-in-chief was N. Balova, followed by B. Nushevski and E. Josimovska.

– *Медикус: информативен гласник на јавното здравство/Medicus*: information newsletter on public health; published by the General Hospital in Shtip; the first issue was published in 2006; it is published three times per year; the editor-in-chief is M. Shumanska (current issue in NUL is from 2011).

– *Здравсџивена џрибуна/Healthcare platform*: journal of the Dr. Trifun Panovski Medical Centre in Bitola; editor-in-chief P. Bojadzhievski; published either monthly or bimonthly (in NUL 1975– 1984).

– *Здравсџивен весник: информативен лист/гласило на Медицински центар Струмица/Healthcare newsletter*: information leaflet of the Strumitsa Medical Centre; editor-in-chief N. Nikolov; its publication can be followed from 1978 through to 1988.

– *Здравствен гласник*: весник на Медицински центар Прилеп/*Healthcare messenger*: newsletter of the Prilep Medical Centre; editor-in-chief M. Nikoloski; its publication can be followed from 1975 through to 1986.

– *Списание на трудови на Друштво за наука и уметности Прилеп*/*Journal with papers of the Society of Science and Art Prilep*, ISBN 1857–7008; a continuation of the Proceedings of papers of SSA; editor-in-chief D. Kamshikoski.

– *Медицински спектар*: стручно списание на Алкалоид, Скопје/*Medical Spectrum*: professional journal of Alkaloid, Skopje (1972–1981); there is no recorded information about this journal; data were received by personal communication.

– *Лекарски весник*/*Doctors' Newspaper* – Informative and educational newspaper of the Macedonian Medical Association (year 1, No.1, 2010). This can be accessed in electronic version at: http://mld.org.mk/?page_id=59

Discussion

After the Second World War and after the liberation, 123 doctors and dentists, 96 pharmacists and 120 medical workers with secondary education worked in the Republic of Macedonia [1].

The health situation in Macedonia was bad. Around 300,000 people a year were suffering from malaria, and 30,000 from active tuberculosis. There was a high rate of mortality in the population 21 per 1,000, a high mortality of infants 154 per 1,000, and short life expectancy.

In such conditions, immediately after the liberation of Skopje and Macedonia, our doctors began working on the foundation of the Macedonian Medical Association (MMA). It was established on 12th of August, 1945.

In the first Rulebook of the MMA the aims and directions for the work of the Association were given clearly, and they have been continually implemented.

Some of them have been accomplished by

- publishing a regular medical journal (MMR) to distribute medicine-related information and promote the medical culture of doctors,
- publishing medical books, newsletters and proceedings from round tables, congresses, symposia, etc. on certain medical issues, etc. [1].

The Macedonian Medical Review (MMR) was the first journal in the Macedonian language, an official publication of the Macedonian Medical Association, a mirror of medical science in the Republic of Macedonia and a cornerstone of Macedonian medical journalism. It has been regularly published since

July 1946, registering the objective development of health protection and medical ideas in our country [2, 3, 4]. The basic tasks of the MMR were written in the Foreword of the first issue "to follow the development of modern medical science, to study our (Macedonian) special pathology and to help professionally the managers responsible for the health and social protection of the people", and then, to deal with our medical terminology and to contribute to the "general ascension of our people and its entry among the other cultural nations". These tasks have been consistently implemented over the past years.

In the first issue, the MMR was described as a journal for "medicine, veterinary science and pharmacy". In time, and following the development of medical science, it has become a journal dedicated to publishing only medicine-related contents. With the establishment of the Faculty of Dentistry, another journal was established, the Macedonian Dental Review.

The foundation of the Medical Faculty at the Ss. Cyril and Methodius University in Skopje in 1947, the foundation of the Department of Dentistry within the Medical Faculty in 1959, which later developed into Faculty of Dentistry, and the foundation of the Faculty of Pharmacy in 1977, positively influenced the education and research activities of the medical personnel, as well as the development of medical journalistic activity [5].

In the past, a very small number of papers from the MMR were included in the world's most famous medical database – the Index Medicus/Medline, and thus access of our papers by foreign medical scientists and doctors has been limited. Today, efforts are being made to include the MMR in Medline (PubMed).

The Annual of the Medical Faculty in Skopje was indexed in Index Medicus/Medline from 1963 to 1979, enabling medical publicity in the world to be introduced to medical research in the Republic of Macedonia. Unfortunately, this journal is no longer published.

Today, only the journal *Prilozi/Contributions of the Macedonian Academy of Sciences and Arts* is indexed in Medline (PubMed) [6].

The Macedonian Journal of Medical Sciences/MJMS, Balkan Journal of Medical Genetics, and Journal of Special Education and Rehabilitation are indexed in other databases: Ebsco, Embase, Hinari, Scopus, Index Copernicus, etc. Furthermore, MJMS, *Prilozi/Contributions* and Journal of Special Education and Rehabilitation are open access journals and hence included in the Directory of Open Access Journals (DOAJ) [7].

The major problem of most of our medical journals is the lack of continuity in publication. Also, most of the papers are not published in English. These are the main obstacles to our journals being indexed in prestigious medical databases.

An important issue is the lack of scientific quality of the papers from domestic and foreign authors published in the Macedonian biomedical journals. All these lead to the fact that none of the Macedonian journals has so far received an impact factor, being an important measure of the influence of one journal [8]. Furthermore, there should be a strict review evaluation. The purpose of editorial rejection is to send detailed comments to the author of the article in order to improve its quality [9].

Spiroski M. et al. have published a series of reviews in MJMS where they have presented the state of the current scientific influence of Macedonian medical journals, their inclusion in medical databases and consequently the influence of Macedonian medical scientists in the world. In one of the articles, Spiroski analysed the number/percentage of Macedonian biomedical scientists included in the BiomedExperts Database and found that our scientists contribute 0.006% in this database. There are several reasons for this situation, and first of all, to slightly improve this situation, authors are encouraged to register, log in, and correct their personal profiles not only in BiomedExperts Database, but in other databases where Macedonian authors appear [10].

In another study, M. Spiroski and J. Gogusev presented the very limited scientific influence of Macedonian medical journals according to the internationally recognized citation metrics indexes, although the authors could not perform a detailed analysis because only one journal (Prilozi/Contributions, Macedonian Academy of Sciences and Arts) is currently indexed in PubMed and Google Scholar [11].

The SCImago database was used by M. Spiroski for analysis of country rank, journal rank and H-index in the field of medicine in the Republic of Macedonia. He concludes that these parameters/indexes are in the range of the other former Yugoslav countries. However, he recommends inclusion of the Macedonian medical journals in the Scopus database, since only Prilozi/Contributions, Macedonian Academy of Sciences and Arts, is included in this database [12] and only one (MJMS) is currently indexed in Index Copernicus.

Referring to this series of articles, E. Mukaetova-Ladinska and K. Korneti-Pekevaska have given suggestions on how to improve the situation concerning Macedonian biomedical science and medical journals. They emphasize the fact that undergraduate and postgraduate course organizers have to engage the students as early as possible in the academic career. On the other hand, the academic staff have to organize good research in our institutions, and have to strive to publish high peer-reviewed papers [13].

M. Marusic and his collaborators have also written several review articles addressing the issue of publishing in the so-called small medical journals. In spite of the fact that these journals are published in developing coun-

tries, they have opened the window into small medical research communities all over the world and a doorway for the authors from these communities to join mainstream science. This might be done more efficiently if the journals were available in free full text on the Internet. The primary goals of the journals are to serve as a bridge between the scientific periphery and mainstream science and as an education centre for research in small scientific communities in order to increase the impact factor. Thus, they may provide an important contribution to scientific knowledge in general [9, 14, 15, 16].

Another issue is also very important: publication in quality journals greatly increases the visibility and acceptability of research in developing countries and boosts the chances of obtaining funding [17].

In our opinion, we need and should improve the quality of the papers published in Macedonian journals. Several goals have to be reached, such as: better equipment and facilities in the hospitals, institutes and research centres that would yield better basic research and clinical trials; better basic education on how to write and publish scholarly/scientific papers, which has to be conducted at both undergraduate and postgraduate levels, together with lifelong learning; a better peer-review process; a better editorial policy on the part of the journals; discouragement of "honorary" authors and an increase in the responsibility of the first author, or the corresponding author, for the originality and the accuracy of the results published in the paper; the implementation of uniform requirements for manuscripts submitted to biomedical journals [18], and acceptance of the guidelines of the Committee on Publication Ethics – COPE [19].

Guidance on manuscript preparation and on ethical issues related to publishing, for example authorship, conflict of interest, and internationally accepted ethical principles for research on humans and animals, as well as other aspects of good research, are also dealt with by the Council of Science Editors (CSE) [20], the European Association of Science Editors (EASE) [21], the World Association of Medical Editors (WAME) [22] and other organizations.

We should foster the goals of the World Association of Medical Editors – WAME, which are:

- "to facilitate worldwide cooperation and communication among editors of peer-reviewed medical journals;
- to improve editorial standards, to promote professionalism in medical editing through education, self-criticism and self-regulation;
- to encourage research on the principles and practice of medical editing."

WAME's founding members have agreed that the members of WAME shall be dedicated to high ethical and scientific principles in the pursuit of the following common goals:

- "to publish original, important, well-documented peer-reviewed articles on clinical and laboratory research;
- to provide continuing education in basic and clinical sciences to support informed clinical decision making;
- to enable physicians to remain informed in one or more areas of medicine;
- to improve public health internationally by improving the quality of medical care, disease prevention and medical research;
- to foster responsible and balanced debate on controversial issues and policies affecting medicine and health care;
- to promote peer review as a vehicle for scientific discourse and quality assurance in medicine and to support efforts to improve peer review;
- to achieve the highest level of ethical medical journalism;
- to promote self-audit and scientifically supported improvement in the editing process;
- to produce publications that are timely, credible and enjoyable to read;
- to forecast important issues, problems and trends in medicine and health care;
- to inform readers about non-clinical aspects of medicine and public health, including political, philosophic, ethical, environmental, economic, historical and cultural issues;
- to recognize that, in addition to these specific objectives, a medical journal has a social responsibility to improve the human condition and safeguard the integrity of sciences".

Conclusions

Following the goals of WAME, our medical journals should become a school on how medical problems are treated and how to prepare a paper for medical journals. In such a way, we could publish and make our rich medical experience available to all medical workers in the world, and thus we could be medical ambassadors of our country. However, it is necessary, in general, to reach the European level of basic and clinical research in medical science in the Republic of Macedonia; therefore, we should invest much more in the education of our medical personnel, and also in the equipping of the medical centres. Then our medical experience would be published more successfully in our own and in world journals.

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REFERENCES

1. Polenakovic M. Forty years since the foundation of the Macedonian Medical Association of SR Macedonia. *Mak Med Pregled*. 1985; 39 (3–4) 151–4.
2. 60 years since the publishing of the first number of the Macedonian Medical Review. In Tofoski J, editor. 60 years Macedonian Medical Association 1945–2005. Skopje Macedonian Medical Association. 2008; pp. 257–60.
3. Editorial boards of the Macedonian Medical Review (MMR). In Tofoski J, editor. 60 years Macedonian Medical Association 1945–2005. Skopje Macedonian Medical Association. 2008; pp. 263–73.
4. Danevska L. Medical journals in the Republic of Macedonia. In Tofoski J, editor. 60 years Macedonian Medical Association 1945–2005. Skopje Macedonian Medical Association. 2008; pp. 301–8.
5. Zanteva-Naumoska M, Polenakovic M. 60 years since the foundation of the Medical Faculty at the Ss Cyril and Methodius University in Skopje, R. Macedonia (1947–2007). *Prilozi/Contributions*. 2008; 29(1) 303–7.
6. Polenakovic M. Forty years since the foundation of the Macedonian Academy of Sciences and Arts (MASA) and 27 years of publishing the journal *Prilozi (Contributions)*, Section of Biological and Medical Sciences, MASA. *Prilozi/Contributions*. 2007; 28 (2) 5–10.
7. Directory of Open Access Journals. Available at: [http //www.doaj.org/](http://www.doaj.org/)
8. Web of Knowledge. Using the Impact Factor. Available at: [http //wokinfo.com/benefits/essays/usingimpactfactor/](http://wokinfo.com/benefits/essays/usingimpactfactor/)
9. Marusic M, Sambunjak D, Marusic A. Life of small medical journal – how bibliographical indexing and international visibility affected editorial work in Croatian Medical Journal. *Croat Med J*. 2006; 47 372–5.
10. Spiroski M. Macedonian biomedical scientists are not adequately represented in BiomedExperts Database. *MJMS*. 2008; 1(1) 13–7.
11. Spiroski M, Gogusev J. Macedonian medical journals have very limited scientific influence. *MJMS*. 2008; 1(2) 10–6.
12. Spiroski M. Country rank, journal rank and H-Index in the field of medicine in the Republic of Macedonia (1996–2008) using data from SCImago. *MJMS*. 2010; 3(2) 99–108.
13. Mukaetova-Ladinska E, Korneti-Pekevaska K. Macedonian biomedical science current standing and suggestions for improvement. *MJMS*. 2010; 3(1) 5–8.

14. Marusic M, Marusic A. Good editorial practice editors as educators. *Croat Med J.* 2001; 42(2) 113–20.
15. Marusic A, Marusic M. Small scientific journals from small countries breaking from a vicious circle of inadequacy. *Croat Med J.* 1999; 40(4) 508–14.
16. Marusic A, Marusic M. Double life of medical journals. *Croat Med J.* 2006; 47 4–6.
17. Harris E. Building scientific capacity in developing countries. *EMBO Rep.* 2004; 5(1) 7–11.
18. International Committee of Medical Journal Editors. Uniform requirements for manuscripts submitted to biomedical journals writing and editing for biomedical publication, updated October 2007. Available at: <http://www.icmje.org>.
19. Committee on Publication Ethics. Available at: <http://publicationethics.org>.
20. Council of Science Editors. Editorial policy statements. Available at: www.councilscienceeditors.org.
21. European Association of Science Editors. Available at: www.ease.org.uk.
22. About WAME. Updated June 24, 2011. Available at: www.wame.org.

Резиме

МЕДИЦИНСКИ СПИСАНИЈА ВО РЕПУБЛИКА МАКЕДОНИЈА ПО ВТОРАТА СВЕТСКА ВОЈНА

VERBA VOLANT, SCRIPTA MANET

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Апстракт: Направен е обид ретроспективно да се истражат публикуваните медицински списанија по Втората светска војна во Република Македонија. Извршена е анализа на основните податоци кои се однесуваат на списанијата, во најголем број на оние кои во својот фонд ги има Централната библиотека на Медицинскиот факултет на Универзитетот „Св. Кирил и Методиј“ во Скопје, потоа на оние за кои податоците се добиени од фондот на Националната и универзитетска библиотека „Св. Климент Охридски“ во Скопје. Дел од податоците е добиен со пребарување на електронските бази на податоци (Medline, Hinari, и др.) и Интернетот како глобален систем на мрежа од мрежи.

По Втората светска војна во Република Македонија направени се повеќе обиди за издавање на биомедицински списанија, а нивниот број е особено зголемен последниве десетина години. Само мал број може да се пофалат со долгого-

дишна издавачка традиција. Всушност, единствено списание кое го одржало континуитетот на издавање од почеток до денес е „Македонски медицински преглед“. Тоа е списание на Македонското лекарско друштво и е најстарото списание во Р. Македонија кое излегува постојано, од 1946 година па сè до денес.

Годишен зборник на Медицински факултет излегува од 1954 до 1997 година под ова име, а потоа во 1997 година е преименуван во „Македонско списание за медицина“. Има прекин во излегувањето во 1999 и 2000 година и редовно излегува до 2007 година, по што повторно е прекинува неговото издавање.

Освен Македонски медицински преглед, други списанија кои се издаваат во Р. Македонија (некои од нив, сепак, нередовно или престанале да излегуваат) се: *Acta Morphologica* (од 2004); *Physioacta* (од 2007); Педијатрија: Годишна ревија (од 1996); Епилепсија (од 1997); Македонски ортопедско-трауматолошки гласник = *Acta Orthopædica et Traumatologica Macedonia* (од 1999); *MJMS – Macedonian Journal of Medical Sciences* (од 2008); Прилози: Македонска академија на науките и уметностите, (од 1969); Македонски стоматолошки преглед (од 1977); Стоматолошка ревија (од 2007); Македонски фармацевтски билтен, (од 1964); Македонски ветеринарен преглед (од 1972); Архиви на јавното здравје (од 2009); *Medicus* (од 2004); *Vox Medici* (од 1992); Социјална медицина – стручно списание за јавно здравје (од 2009); Дефектолошка теорија и практика = *Journal of Special Education and Rehabilitation* (од 1997); *Balkan Journal of Medical Genetics* (од 1998); *BANTAO Journal*; Народно здравје – списание на здравствено просветување (од 1951); *Acta Chirurgica Iugoslavica* (од 1954); *Acta Chirurgica Macedonica* (од 2002); Ние, Вие и здравјето (од 2006); Информативен билтен – здравје, Кавадарци (1999); Медицинска ревија – стручно списание на здравствените работници во Штип (2001); *Медикус* – информативен гласник на јавното здравство, ЈЗУ Општа болница, Штип (2006); Медицински билтен Санитетске службе Скопске армијске области, (1957–1987); Медицински спектар – стручно списание на Алкалоид – Скопје (1972–1981); Здравствен весник (1990); Медицински преглед, Штип (2001); Здравје, Штип (1979–1994); Здравствена трибина, Битола (1975–1984); Списание на трудови на Друштво за наука и уметност, Прилеп; Здравствен гласник – весник на Медицински центар Прилеп (1975–1986); Прилози, Битола (од 1960); Лекарски весник – информативно-едукативно гласило на Македонското лекарско друштво (2010).

Голем број медицински списанија се појавуваат и по краток период исчезнуваат. Трудовите главно се пишуваат на македонски јазик, и ниту едно од списанијата моментално не е индексирано во Pub/Med, освен Прилози на Македонската академија на науките и уметностите.

Според наше мислење, за да се подобри квалитетот на објавените трудови во македонските списанија, неколку цели треба да се остварат, како што се подобра опрема и објекти во болниците, институтите и истражувачките центри кои ќе ги изведуваат подобро основните истражувања и клиничките испитувања; подобра едукација за тоа како да се пишуваат и објавуваат научни трудови, што треба да се спроведе и на додипломски и на постдипломски студии, заедно со

доживотното учење; подобар процес на рецензија; подобра уредувачка политика на списанијата; усогласеност со меѓународните стандарди/униформирани барања за ракописи доставени до биомедицинските списанија; поттикнување на целите на Светската асоцијација за медицински уредници и Европската асоцијација за научни уредници, итн. Ако се реализираат овие задачи и цели, тогаш може да се изгради солидна основа за подобро да ги презентираме нашите медицински резултати во светот.

Клучни зборови: медицински списанија, Република Македонија.

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